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ORIGINAL LECTURES.

A COURSE OF LECTURES ON DERMATOLOGY.

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BY LOUIS A. DUHRING, M.D.,

PROFESSOR OF DERMATOLOGY IN THE UNIVERSITY.

(Reported by Henry Wile, M.D.)

LECTURE VI.

ATROPHIES; ALBINISM; VITILIGO; CANITIES; ATROPHIA CUTIS; STRIÆ ET MACULÆ ATROPHICÆ; ALOPECIA; ALOPECIA AREATA; NEOPLASMATA; KELOID; MOLLUSCUM FIBROSUM; XANTHOMA; RHINOSCLEROMA; LUPUS ERYTHEMATOSUS; LUPUS VULGARIS; SCROFULODERMA.

ATROPHIES are characterized by diminution or degeneration of the elements of the skin. The process may be a simple atrophy, as of pigment in canities, or an atrophy and a hypertrophy combined, as in vitiligo, or, still further, a degenerative atrophy of the skin and subcutaneous connective tissue, as in morphœa. The pigment, skin proper, subcutaneous connective tissue, hair and nail, may all suffer from atrophy.

ALBINISM is a congenital absence of pigment, either partial or universal, of the skin, hair, iris and choroid coat. The hair is usually white or yellowish and silky. The persons thus affected are called *Albinos*. The condition occurs among all races, of the north as well as of the south, and constitutes a curious anomaly. Partial albinism sometimes occurs especially in negroes, who are spoken of as "pied" or "piebald." Interesting cases of albinism were those known as the Cape May Albinos, where the parents were negroes having six children, three of whom were Albinos and three were black.

VITILIGO is an acquired disease, coming on at any age after birth, and is characterized by defined, rounded, ovoid or irregularly shaped patches of whitened skin surrounded by a variable amount of yellowish or brownish pigmentation. It usually begins in one or several places, which are pinkish or whitish, and surrounded by a brownish areola. These spots vary in size from a coin to the palm of the hand, and have a tendency to coalesce, forming larger patches. It is an atrophy of pigment surrounded by a hypertrophy of pigment, or a diminution of pigment surrounded by an excessive amount. The regions most commonly affected are the face, backs of the hands, and the trunk. When marked on the trunk it is not so apt to attack the hands or face. The course is, as a rule, slow, extending over years. The disfigurement is marked if occurring about the face or hands. There are no subjective symptoms, nor is there any disturbance of the general health. The disease is under the influence of the nervous system.

It is to be distinguished from chloasma in that the latter affection consists of yellowish or brownish spots

without whiteness; also from tinea versicolor, in which there is more or less furfuraceous scaling, the scales containing a fungus. In the way of treatment, much can sometimes be done. Arsenic used judiciously, in small doses, for a period of months or years, is in some cases followed by marked improvement. Local treatment is of no avail. The prognosis should always be guarded, as the disease may last a lifetime.

CANITIES, or graying of the hair, may be either premature or due to old age. It may be partial, occurring in streaks or locks, or it may be universal. The color is variable, sometimes being one shade, sometimes two shades, as in Mr. Wilson's case, in which the hairs in their entire length presented alternate brown and white markings, the latter marking being supposed to be due to the presence of air globules. The hair may also change color, as a yellowish shade may turn into a black, or a brown into a red. Changes may also occur after severe illness, as after scarlet fever, brown hair being replaced by white. As a rule, time is required for alteration of color, but the question has often arisen as to whether a change could take place suddenly, and this question may be answered in the affirmative. Under nervous shock, or strong emotional influence, sudden graying of the hair may take place. Some authorities, as Wilson, explain the phenomenon by the presence of air bubbles in the hairs.

ATROPHIA CUTIS, or atrophy of the skin proper, is by no means common. In simple atrophy, where there is a diminution of the cutaneous tissue-elements, the skin presents a thin, dry, shrivelled appearance, and in degenerative atrophy, where there is structural change without loss of substance, the skin is somewhat hardened, and presents a waxy, fatty appearance. It may occur in streaks, spots or patches, or it may follow other processes, as lupus erythematosus, syphilis, seborrhœa and tinea favosa. *Glossy skin* is a condition due to impaired nutrition occurring about the extremities, especially the fingers, consisting of pinkish, reddish, smooth, shining lesions, like chilblains. *General idiopathic atrophy* comprises such cases as have been described by Wilson, Hebra, Hutchinson, Taylor and others, and known under the name of "xeroderma of Hebra," or "parchment skin." The condition is allied to morphœa, and the lesions exhibit a tendency to develop into epithelioma. They are disseminated, and consist first of a congeries of bloodvessels, accompanied by pin-head to split-pea-sized telangiectases and excessive pigmentation.

STRIÆ ET MACULÆ ATROPHICÆ may be either idiopathic or symptomatic. The former manifest themselves as lines, one or two inches in length, or as pin-head to finger-nail-sized, round or oval spots, presenting a smooth, shining surface. These are seen most frequently about the pelvis and on the flexor surfaces. The latter consist of those atrophic lesions brought about by overdistention of the skin, as seen in pregnancy and ascites.

ALOPECIA is a term used to express more or less complete, partial or universal baldness, irrespective of cause. The varieties are as follows: In *congenital alopecia* it may be partial or entire, usually the former. In one case, reported by Schede, excised portions of the scalp failed to reveal under the microscope the presence of hair-bulbs. *Senile alopecia*, or baldness of old age, is characterized by the permanent loss of the hair, accompanied by atrophy of the skin. The affection begins about the crown of the head, the hairs, often first turning gray, become thin, dry, and finally fall out. Men are more frequently affected than women. *Idiopathic premature alopecia* begins, as a rule, between the ages of twenty-five and forty, and may run a slow or rapid course. The hairs fall out without apparent cause, and are at first replaced by finer hairs, which in turn are shed. It also usually begins about the vertex and extends forward. It is very common, and is found more frequently in males. *Symptomatic premature alopecia* is a form of baldness which may accompany or follow certain diseases, and may be temporary or permanent. Such a condition may occur after nervous shock, severe fevers, protracted seborrhœa, lupus erythematosus, certain parasitic diseases of the scalp, leprosy and syphilis. *Syphilitic alopecia* is generally one of the early manifestations of syphilis, and occurs before the syphilodermata, or later, as a result of ulceration. As one of the early symptoms, it gives the patient much concern, as it is sometimes copious, involving even the eyebrows and eyelashes. It lasts usually but a few months.

ALOPECIA AREATA is an atrophic disease of the hairy system, appearing usually in the form of whitish, smooth, bald patches, of varying size and shape. It may come on suddenly or gradually, generally first invading the parietal or occipital regions of the scalp; it may also affect other hairy parts of the body. The patches are usually rounded, vary in size from a coin to the palm of the hand, are smooth and polished, and are whitish in color. Occasionally there are a few short, atrophied hairs to be found, but as a rule the hair-follicles are shrunken, closed, the skin becoming thin, similar to that of an old man. The course of the disease, whether left to itself or under treatment, is variable, months or years elapsing before complete recovery sets in. The latter may never occur. The prognosis varies according to the history and duration of the disease and the age of the patient. The younger the individual, the more favorable. In young persons, complete restoration of the hair is the rule, the patches first being covered with lanugo, and later by the normal growth. In some cases recovery sets in spontaneously.

The causes are not well understood. It is not of parasitic origin. It is attributed to nerve disorder, producing a temporary arrest of nutrition. The disease may be regarded as a tropho-neurosis. Microscopic examination of the hairs reveals atrophy of the bulbs. It may be confounded with tinea tonsurans, and cases have been recorded in which the two diseases existed together. But the blanched, atrophied condition and smoothness of the patch, and the absence of fungus in the former, are sufficient to give the diagnosis.

As regards the treatment, locally, a number of remedies exert a good influence; for example, sulphur, some of the mercurial salts, tar, oil of cade, and carbolic

acid. The following prescription may also be used, full strength or diluted, as a stimulating lotion:

R.—Tr. cantharidis,
Tr. capsici, aa f ʒjss.
Ol. ricini, f ʒij.
Spts. lavandulæ,
Spts. rosmarini, aa f ʒss.—M.
Sig. Apply daily.

Ointments of tar and of sulphur are, perhaps, our most valuable remedies. Blistering is recommended by some, also turpentine, and mercurials, as ammoniated mercury, forty to one hundred grains to the ounce. As regards internal treatment in alopecia areata, arsenic is the best remedy, and, given in tonic doses for months, will in some cases be followed by good results. In this disease, local measures, as a rule, exert no influence until after the hairs begin to grow.

ATROPHY OF THE HAIR takes place as a result of certain diseases of the scalp, or certain constitutional diseases, as syphilis. The hairs become fragile and dry, and sometimes have a tendency to split in the follicle, producing irritation. It is due to improper nutrition. *Trichorexis nodosa* is another peculiar condition of the hair, in which there is a series of small, spindle-shaped, bulbous swellings along the shaft, looking not unlike nits. The free end of the hair is split up, and presents a brush-like appearance. *Piedra*, also a nodosed condition of the hair, occurring in Colombia, is said to be due to a fungus.

ATROPHY OF THE NAIL is as a rule acquired, and is characterized by a dry, brittle, "worm-eaten" condition. It may be due to syphilis, eczema or psoriasis; also to the fungus of tinea favosa and of tinea tonsurans. For simple atrophy of the nail, and that due to eczema and psoriasis, arsenic is the best remedy.

NEOPLASMATA, new growths, comprise a large and important class of diseases. They are composed of connective tissue, as xanthoma and molluscum fibrosum, or of a cellular deposit, as in lupus and syphilis. New growths may be either benign, as xanthoma, or malignant, as cancer, or intermediate, as lupus. They are, as a rule, not painful, and run a chronic course, lasting for years.

KELOID is a connective-tissue new growth, consisting of one or more irregularly shaped patches or tumors, variously sized, reddish, smooth, elevated, firm and elastic. The lesions may be the size of a pea, a bean, or a finger; in shape elongate or ovoidal, firmly seated in the skin, and presenting a smooth, glossy surface, of pinkish, more or less variegated color. The form is generally peculiar, consisting of a body with diverging processes, not unlike a spider or a crab. Its growth is slow, occupying years, and the tumor is seldom painful except on pressure. Cases in which the lesions develop after burns are sometimes exceedingly painful. Respecting a cause, keloid may be divided into two varieties—spontaneous, in which it develops without any apparent cause, and cicatricial, where it develops after injuries, as burns, cuts, and severe flogging. It is also noticeably more common in the colored race.

Pathologically, the lesion is situated in the corium, and consists of dense fibrous tissue made up of closely packed fibres like cicatricial tissue. According to some, the change begins in the walls of the bloodvessels. The diagnosis offers no difficulty.

Treatment is, as a rule, unsatisfactory. The more the knife is used the more the disease spreads; it almost invariably recurs after operation. According to Vidal, repeated scarification is useful. Wilson recommends diachylon plaster, and in some cases it gives fair results. The growth sometimes disappears spontaneously.

MOLLUSCUM FIBROSUM is a connective-tissue new growth, sessile or pedunculated, soft or firm, rounded and variable as to size. It is single or multiple, the lesions being usually numerous, about the size of a pea, and grow upon the general surface, especially the trunk. They may begin at any age, grow slowly, and, having attained the size of a pea or cherry, remain stationary. There is no pain or annoyance attending their development. The cause is unknown. The disease is, however, apt to appear in individuals of a sluggish temperament, in those who are dull, and exhibit little physical or mental energy. The tumors consist of a whitish or yellowish fibrous tissue, being denser and compacter about the base. They cannot be enucleated, being firmly bound down to the subcutaneous connective tissue. The disease takes its origin in the connective tissue surrounding the fat globules. It is to be distinguished from molluscum epitheliale and sebaceous tumor, also from lipoma. The treatment, when the lesions are not too numerous, consists of extirpation with the knife, ligature or galvano-cautery.

XANTHOMA is also a connective-tissue new growth, which has of late excited attention, especially in England, where the disease seems to be most frequently met with. It is characterized by yellowish, circumscribed, irregularly shaped, soft, flat or raised patches or tubercles. There are two varieties, which clinically are entirely distinct,—*xanthoma planum* and *xanthoma tuberosum*. The lesions are in the corium, and the patches have the look in the flat variety of being in-laid, resembling pieces of chamois-skin laid in the skin. They are usually met with about the eyelids, in the form of narrow semicircular patches, sharply defined, of a pale or dark buff or lemon color, and may extend from one canthus to the other. They give rise to no pain or inconvenience, but may give the individual a grotesque appearance.

The tubercular form consists of pin-head, pea-sized or larger tubercles, usually of a golden-yellow color, occurring on the neck, trunk and extremities. It is a disease usually of middle life, but is exceptionally met with in children. The lesions may be single or multiple. The multiple form (*xanthoma multiplex*) is rare. They develop as a rule gradually and pursue a slow course.

The causes are not known. It has been supposed that the disease has some connection with hepatic disorders, and this is sometimes the case in the multiple variety; *xanthoma palpebrarum*, on the other hand, is seldom connected with jaundice. The disease is more common in women than in men. Pathologically, the growth consists of fatty degenerated connective tissue. The treatment is excision, which in suitable cases is usually satisfactory. Spontaneous involution occasionally occurs.

RHINOSCLEROMA is a rare disease, chiefly encountered in Germany, consisting of a circumscribed, irregularly shaped, flattened, tubercular, remarkably hard and dense, cellular new growth, having its seat about the

nose. It is unknown in this country, no typical case being as yet reported.

LUPUS ERYTHEMATOSUS is a cellular new growth, characterized by variously sized, rounded or irregularly shaped, more or less inflammatory, scaly patches, having its seat usually about the face. The disease generally begins as a small, insignificant, reddish patch, with slightly adherent scales, increasing gradually in size from week to week or month to month. Later, new lesions spring up. They are pale or deep red or of a violaceous tint, having usually a well-defined border, slightly elevated, and covered with yellowish or grayish, sometimes sebaceous, scales. The latter are attached to the openings of the sebaceous glands, which are distended by plugs of sebaceous matter. Sometimes the patches grow rapidly with inflammatory symptoms. There is also, at times, heat and itching. One, two or more patches are usually present, and the region generally attacked is the face, especially the nose and cheeks, the lesions often assuming a butterfly form. The affection runs a chronic course, it may be for years, spreading, and in some instances disappearing from time to time, leaving soft, whitish, superficial, more or less punctate, atrophic scars. It is by no means a rare disease, and is rather more frequently encountered in women than in men. It seldom appears before adult age, and in this respect differs from *lupus vulgaris*. It may develop from a simple congestive *seborrhœa*; in other cases the causes are obscure. It is a combined process, consisting of an inflammation and of a new growth. It often begins in the sebaceous glands, also sometimes about the sweat glands.

Microscopical examination of recent lesions reveals aggregations of small round-cells around the follicles and glands, together with other inflammatory changes. Later stages show retrograde changes in the tissues which lead to absorption and atrophy. If the retrograde metamorphosis takes place early, no cicatricial tissue is found, and no trace of the lesions remains.

The diagnosis is, as a rule, easy; the regions affected, the sharply defined patch with border, the adherent, yellowish scales, and the involvement of the sebaceous glands, are all important differential points, and serve to distinguish it from *lupus vulgaris*, *syphilis*, *psoriasis* and *seborrhœa*. The disease is generally obstinate, but in the inflammatory types should not be treated too actively, as with caustic remedies, at first. Internally, iodine is valuable in some cases in the form of iodized starch, as recommended by McCall Anderson, consisting of twenty-four grains of iodine, triturated with water, and one ounce of starch gradually added. This is given in drachm doses. Iodide of potassium, cod-liver oil, and arsenic are also of value in some cases, especially when there is impaired nutrition. External treatment, however, usually gives the best results. In mild cases, *sapo viridis*, used in the form of plaster, or in combination, two parts to one of alcohol, used as a lotion, is an efficient agent. When there is *seborrhœa*, sulphur ointment may be used. In the superficial variety, the following is valuable:

R.—Zinci sulphatis,
Potassii sulphureti, ʒss.
Aquæ rosæ, fʒiv.—M.

Sig.—Shake. Apply several times a day, five or fifteen minutes at a time.

Mercurials, carbolic acid, and tar are also of value. Tincture of iodine and glycerine, as recommended by Hebra, are at times useful. The following mixture will sometimes prove of service:

R.—Ol. cadini,
Alcoholis,
Saponis viridis, āā ʒss.—M.

Sig.—To be rubbed in morning and evening.

Caustics should be used with caution. A useful method of treatment is that by scarification, multiple or linear, whether in the deep-seated or superficial variety. The prognosis should always be guarded.

LUPUS VULGARIS is a cellular new growth, characterized by variously sized and shaped patches of a reddish or brownish color, made up of macules, papules or tubercles, the disease usually terminating in ulceration and cicatrices. It generally begins in the form of small, grouped or disseminated points in the skin, of a yellowish or brownish color. These coalesce, forming patches of various sizes. They may also develop into papules and tubercles, the condition being then known as *lupus tuberculosus*, a common form of the disease, the lesions being rounded, defined, and varying in size from a pin-head to a split pea. The tubercles may then undergo absorption, leaving a desquamative surface (*lupus exfoliatus*), or ulceration causing destruction of tissue (*lupus exulcerans*). The ulcers may also be the seat of excessive granulation (*lupus hypertrophicus*). The disease appears, as a rule, in childhood, running a chronic course, persisting even throughout life. It attacks the face, as a rule, especially the nose, upper lip, and cheeks; also the ears, hands, and even the mucous membrane of the mouth and larynx, often producing much destruction of tissue, and, through the formation of extensive cicatrices, ugly deformity. Little can be said respecting the cause. It is related to the condition known as scrofula, and generally begins before puberty, differing in this respect from lupus erythematosus. It is rarely hereditary, and attacks both sexes equally. It is rare in this country, but is common in southern Europe.

The disease is sometimes met with in connection with scrofula, but in many cases is distinct from this disease. Pathologically it is a chronic inflammatory process characterized by a small-cell infiltration, tending to form in groups, and having its primary seat in the corium. These cellular groups are called by Kaposi "lupus nodes." Giant cells are also occasionally encountered. The combination of lupus and epithelial cancer is occasionally met with, the cancer developing from the rete and glandular elements of the skin long affected with lupus. It must be distinguished from syphilis, cancer, lupus erythematosus and acne rosacea. From syphilis, it may be differentiated by the character of the ulcer, its slow, chronic course, slight, inoffensive discharge, and scanty crust. The cicatrices are moreover hard, irregular and yellowish, while in syphilis they are soft and whitish. From cancer lupus is easily distinguished. Cancer is as a rule localized, circumscribed, painful, indurated, and is accompanied by great destruction of tissue; it is furthermore a disease of later life. Lupus erythematosus occurs after puberty, is never accompanied by tubercles or ulceration, and shows usually disorder of the sebaceous glands, which last is not the case in lupus vulgaris. From acne rosacea, it is

distinguished by the history of the lesions and by the dilated bloodvessels and the pustules.

Regarding treatment, the disease will always be found obstinate, and usually nothing short of heroic remedies yields good results. Internally, iodide of potassium and cod-liver oil are valuable remedies. External treatment is, however, most important, and a large number of remedies have been recommended, most of them being of a stimulating or caustic nature. In the early stage of the process stimulating applications, such as equal parts of iodine and glycerine, mercurial plaster, and tarry lotions and ointments, may be employed with a view of bringing about absorption. In a majority of cases caustics will have to be resorted to, and the ones most generally used are nitrate of silver in stick form, pyrogallie acid, carbolic acid, caustic potassa, chloride of zinc, and arsenic. One of the most valuable methods of treatment is that by erosion with the curette. Scarification, multiple or linear, is also highly useful; it must be repeated at intervals, and it will be noted that the lesions grow a shade paler after each operation.

SCROFULODERMA.—Under this term are designated those cutaneous changes which manifest themselves in strumous or scrofulous subjects. The most common lesion is the scrofulous ulcer, which is a degeneration of the skin resulting from the ulceration of an underlying lymphatic gland. Such an ulcer is usually elongate, of a violaceous or pinkish color, with an uneven surface, undermined here and there, and exhibits little tendency to undergo reparative change. Another lesion is the variously sized, irregularly shaped, yellowish flat pustule, met with upon the trunk and extremities, running a chronic course and leaving superficial scars. Another and rarer form is the fungoid variety, appearing perhaps most frequently about the extremities, especially the hands.

The treatment consists in the administration of such remedies as cod-liver oil, sulphur, iodine, phosphorus, and lime. Locally, stimulating ointments are indicated, and above all the use of the curette, as in the treatment of lupus vulgaris.

ORIGINAL ARTICLES.

ON SO-CALLED ABSCESSSES OF THE FRONTAL AND MAXILLARY SINUSES, AND ESPECIALLY ON THE VALUE OF PERCUSSION AS A MEANS OF DIAGNOSIS,

AND THE PROPER OPERATIVE MEASURES FOR THEIR RELIEF.¹

BY W. W. KEEN, M.D.,

PROFESSOR OF SURGERY IN THE WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA, SURGEON TO ST. MARY'S HOSPITAL, ETC.

I HAVE used the term "so-called abscesses" as, properly speaking, these are not strictly abscesses, but accumulations of pus in normal cavities. But the term, though loosely used, is perhaps the briefest and best, and is not really likely to lead us astray.

Both of these cavities are lined by continuations of the mucous membrane of the nose, and as is natural, therefore, one cause of such abscesses is

¹ Read before the Philadelphia Academy of Surgery, June 2, 1884.

a chronic or occasionally an acute nasal catarrh. Indeed, it is surprising that such results are not more frequent in view of the very numerous cases of the latter malady, whether as a chronic nasal catarrh, or as in the ordinary acute "cold in the head." In the latter the frontal sinuses especially are very frequently involved, as is shown by the frontal headache and the sudden and abundant escape of thick, ill-smelling, greenish discharge. That abscess of the frontal sinus is so rare is probably due to its effective drainage by gravity, as well as to the size of the infundibulum. In over twenty years of active practice I have seen only the two cases here recorded, and Dr. Harrison Allen, who saw the first case with me, informs me that in his extensive experience with nasal catarrh this is the only case he too has seen.

Another cause of abscess in the antrum is dental caries, or alveolar abscess. According to Salter, this is the most frequent cause of antral abscess, and this view is sustained by the number of cases recorded by him, and by Garrettson, Jourdain, and other dentists.

Sometimes mere closure of the orifices of these sinuses is sufficient to cause abscesses, by the want of proper "ventilation" of the sinuses, the retention and decomposition of the secretion and subsequent irritation. But this closure is usually merely due to tumefaction of the mucous membrane consequent upon catarrhal inflammation.

Traumatism may also occasionally be assigned as a cause; both accidental, as from blows and such like accidents, or surgical, as *e. g.*, Langenbeck reports two cases following resection of the infra-orbital nerve (*Archiv klin. Chir.*, xi., 1869).

In the frontal sinuses, though occasionally in the antrum also, especially in tropical climates, the larvæ of insects are sometimes causes of abscess, as is mentioned by Allen, Hyrtl, Dumesnil, Bordenave, and others. Galezowski¹ reports one curious case caused by a small splinter of wood in the root of the first left molar, which had been long carious. Low fevers also have occasionally produced such abscesses; occasionally also syphilis.

The *symptoms* are both local and constitutional. The constitutional symptoms are alike in the two disorders, chill, fever, thirst, sleeplessness, etc. But it is to be noted that they may be, and generally are, entirely absent, especially if the case is subacute or chronic, as in both of the cases recorded hereafter. On the other hand they may be of exceptional severity, as in the case recorded by Dr. Muir, of Madras (*Edinb. Med. Journ.*, 1866), in which death occurred in sixteen days from intra-cranial suppuration and epilepsy. Foucher and Van Boeck also have reported fatal cases.

The local symptoms will vary according to the sinus involved. In abscess of the *frontal sinus* there may be pain in the forehead, often neuralgic in character, and following the nervous branches; a feeling of stuffiness in the head and nose; profuse or more frequently only moderate discharge of nasal mucus and pus. The mechanical symptoms will often predominate; sometimes, as in the case below,

to the exclusion of the others. The pus will gradually increase and will cause either expansion of the cavity or perforation of one of its walls. The expansion may be bilateral if there be no partition between the two frontal sinuses, or unilateral if the septum be complete; exophthalmos may possibly result, as shown by Salter and Soelberg Wells. If perforation occur, it may penetrate either of the three walls. Most frequently it will penetrate the thin roof and bore into the anterior fossa of the skull and may cause meningitis; or it may penetrate the floor and so escape into the orbit, the site of the orifice being in some cases far back in the orbit; or, thirdly, it may open anteriorly above the eyebrow. It should also be remembered that openings may exist in any one of these situations, either as a result of atrophy or of faulty development, as has been best shown by Zuckerkandl. These most frequently exist in the orbital roof. If such perforations occur under the external skin, the escaping pus will form small and gradually enlarging soft tumors, reducible by pressure or by recumbency (an important point) and showing fluctuation if of any size. The character of the contents can then be easily determined by the hypodermic syringe or the exploring-needle. They may readily be mistaken also for sebaceous or other small cysts, or for tarsal or orbital tumors, an error easily corrected by attention to the points just mentioned.

In abscess of the *antrum* the pain is deep-seated and is apt to be referred to the teeth and the cheek, though it may sometimes radiate to considerable distances; a sense of fullness is perceived; if the nasal orifice is patent, pus will escape from the nose, and it is to be observed that it escapes from only the affected nostril, and if that nostril be cleansed and the patient lie upon the sound side, it will readily refill. If the roots of the first and second molar penetrate the antrum, as is not infrequently the case, the pus may escape by this easy channel and may destroy one or both of these teeth, thus transforming what is a frequent cause of the disorder into an effect. But if the pus be pent up, distention will also occur here, ending finally in perforation. If the orbital floor yield most readily, exophthalmos and even permanent amaurosis may result, as in Salter's notable case. The pus may even pass by the ethmoidal cells and orbit into the cranial cavity, as in the cases of Foucher and Van Boeck already referred to (Bousquet, *op. cit.*), or it may push down the roof of the mouth, or push out the anterior wall forming the cheek. In all these cases great deformity exists, both from the distention of the bone and the inflammatory swelling and œdema of the soft parts; and if the pus escape through the cheek, instead of the mouth, unsightly depressed cicatrices result. With distention of the anterior wall comes also marked thinning of the bone, so that it will often crackle like parchment, and fluctuation may be perceived. Such swellings may be even mistaken for malignant diseases, and Heath, Agnew, and Broca mention cases of removal or impending removal of the jaw for a disease perfectly amenable to simple operative treatment.

The *diagnosis* of such abscesses is in general fairly easy, based upon the symptoms already stated, but

¹ Bousquet, Etude sur les abcès développés dans le sinus maxillaire, Paris, 1876.

one means of diagnosis that has served me a good turn I have not found mentioned in any of the textbooks or special treatises I have consulted, viz., *percussion*. Even in the frontal sinus, if the median septum be complete, percussion will give an appreciable difference of tone on the two sides, the affected side being of course the flatter of the two; but in the antrum this is unmistakable to a practised ear. In fact, as will be seen, the diagnosis in the second case to be related was based largely on this physical sign. Of course, it would not assist us to diagnosticate between an antrum filled with pus and one filled with a cyst or a solid tumor, but taken in connection with the other symptoms present, it will go far to make certain that which is already probable. The operative treatment will be discussed later.

CASE I.—Abscess of the frontal sinus, resulting from chronic nasal catarrh; perforation of orbital roof anteriorly; operation; cure.

Rev. Dr. W., æt. 54, for many years a sufferer from nasal catarrh and asthma, about two and a half years ago, casually called my attention to a small tumor as large as a large pea, just below the inner end of the right eyebrow, which he stated had existed for some months. Examining it very hastily, I judged it to be a small sebaceous tumor and told him if it enlarged any to consult me again when, if need be, I would remove it. I saw him at frequent intervals, and a year or so later observed that it had enlarged slightly and was becoming a mechanical obstacle in opening the eye. He then told me he had repeatedly observed that on rising in the morning it was not perceptible and only reappeared a short time after assuming the erect posture. I found that steady pressure would cause its disappearance in a few seconds, when the finger perceived an opening in the frontal bone about one-third of an inch in diameter, immediately below the inner end of the supra-orbital ridge. Percussion also showed a slight difference in the sound over the two frontal sinuses, the right being slightly duller. He had had for a long time a moderate and somewhat offensive nasal discharge from his nasal catarrh, but no increase recently, and no blood had been observed. Of late there had been a feeling of fulness in the right frontal region, but no real pain or other marked discomfort, and no constitutional disturbance. In view of the physical signs and his chronic nasal catarrh, I then diagnosticated an abscess of the right frontal sinus; aspiration by a hypodermic needle confirmed the diagnosis by revealing the contents to be an offensive, thick pus. Dr. Harrison Allen kindly saw him also and confirmed the diagnosis and assisted me in the operation. On February 21, 1883, I gave him ether and laid bare the opening by an incision about half an inch long, which gave exit to about two drachms of pus. The probe showed that the right sinus was completely separated from the left by a septum, that it was about half an inch deep antero-posteriorly, and that the internal surface was bare of mucous membrane, a curious fact in view of the complete recovery without necrosis. By a grooved director, slightly curved, I bored a passage with ease into the nose, washed out the sinus with carbolized water, and carried a rubber drainage-tube through the upper

orifice into the nose and as far as the opening of the right nostril, securing it in place by a thread. The nose was examined by the finger and probe and a small piece of dead bone was removed by the forceps. The bleeding was slight. Moderate reaction followed for a couple of days, the temperature rising to 100.2° and quickly subsiding. Considerable pus was discharged by the nose. The cavity was syringed thrice daily by carbolized water. At the end of three days, as the discharge had much diminished, a small bundle of horse-hairs was substituted for the rubber tubing, and these were gradually removed during the next five days, when a single hair was left. At the end of the second week this was removed, the discharge then having ceased. The opening closed in a day or two. From then till now, a period of sixteen months, there has been no further trouble, save the nasal catarrh, for which he is now under Dr. Allen's care. The nose, I should say, is very high and narrow and the walls in contact on the right side.

CASE II.—Abscess of the right antrum, arising from a cold in the head; operative perforation of anterior wall; cure.

Mrs. A., æt. 36, a delicate woman of a nervous organization, while in the country during the summer of 1882, caught an ordinary "cold in the head," which persisted for weeks in a moderate form with a slight muco-purulent discharge. She consulted me for it in November, 1882, but it was so moderate that I gave her simple remedies and saw her but four times at my office from November, 1882, to March, 1883. As the "cold" still persisted and had rather grown worse, I now examined her with care. She complained of slight pain in the right cheek, extending toward the inner angle of the eye, with a sense of discomfort and fulness. The teeth were sound, and there was no toothache. The discharge was somewhat scanty in the morning, but at about ten o'clock daily she had a pretty free discharge, enough to soil about two handkerchiefs. It was muco-purulent in character, unmixed with blood. From this hour the discharge lessened and was scanty during the rest of the day; it did not waken her at night; the amount varied somewhat on different days. The symptoms of "cold" were limited chiefly to the slight pain and the discharge. The nose was not blocked so as to interfere with respiration, except when obstructed with the discharge. Posture influenced the discharge only slightly. There was no fulness of the cheek, no thinning of the anterior wall of the antrum, no swelling of the overlying soft parts, no deformity in the roof of the mouth or about the orbital floor. Percussion over the two antra, however, revealed unmistakable dullness on the right side as compared with the left. This could only be caused by the growth of a solid tumor in the antrum, or by an accumulation of fluid in a cyst, or of free pus. The history, physical signs, and symptoms all seemed to point to the latter, and accordingly I advised an operation for its relief.

April 5, 1883, after giving ether, I perforated the anterior wall of the antrum, between the bicuspid and the first molar teeth, with a carpenter's triangular "counter-sink," using the instrument found in the

ordinary set of tools that come in a hollow handle for household use. About a half ounce of non-fetid pus escaped. I then introduced a new Nélaton catheter and syringed out the cavity with carbolized water, till the water came away clean. Nearly all of the injection escaped by the nose, thus showing the antral opening to be patulous and explaining many of the observed symptoms. Nothing was used to plug the opening and thus to prevent food from passing into the antrum, but to attain this object the diet was restricted to milk.

The reaction was very slight, the temperature never rising above 99.4°. For six days the antrum was washed out daily in the same manner, using smaller catheters as the opening contracted; two days later the opening closed and solid food was then allowed. All the symptoms of the cold quickly disappeared and no trouble has been felt from that time till the present, a period of fourteen months. The cicatrix is not perceptible.

The value of percussion as well as of the hyperdermic aspiration is sufficiently shown by the histories related, and it only remains to discuss the operative treatment.

As to the case of frontal abscess, it is not needful to say anything further; and in reference to the antral abscess, only the point at which it is desirable to puncture needs a few words.

A century ago Jourdain recommended catheterism of the antrum by the natural opening, but the commission appointed by the Academy of Surgery rejected the proposed operation as "difficult and uncertain," and more lately, Broca has confirmed the opinion that it cannot be done even on the dead subject. Still more recently Zuckerkandl¹ has proposed to penetrate by an artificial opening below the natural one, where only mucous membrane separates it from the nasal cavity. But such an opening is neither an easy nor a sure operation, in so narrow a cavity as the nose, especially if the side involved is the narrowest one; nor does it provide so effective drainage as the alveolar process or the anterior wall, where the suction of the mouth as well as gravity facilitates the escape of the pus. About the only advantage it has is that it avoids the possibility of the entrance of food into the antrum. But this is not a practical difficulty. Restriction of the food to milk for a few days avoids all danger; and, as a matter of fact, I find that no pains have been taken, or at least are recorded in the published cases, to avoid any such accident, and no mention is made of its having occurred.

Nearly all modern authors, as Heath, Garretson, Agnew, Gross, Bousquet, etc., advise the removal of a tooth and penetration into the antrum through one of the sockets by a trocar or drill, care being taken that the force used at the moment of puncture shall not drive the instrument too far up and so wound the eye. If the first or second molar tooth be so carious as to be useless, so that it ought to be drawn anyhow, or if the disease arise from the tooth, of course it should be removed and its socket used as a route for the perforation, not however by a trocar

or drill, but by the surgical engine, as stated by Garretson, since this will penetrate readily, and no danger of wounding the eyeball can arise. The first or second molar should be selected, inasmuch as their roots are directly in contact with the floor of the antrum, and even may penetrate its cavity.

But if these teeth are sound or by treatment can be preserved as useful teeth, they ought in no case to be destroyed. To extract a useful tooth needlessly is little short of a surgical crime, as it inflicts an irreparable and serious injury. In such a case I would strongly advise the perforation of the anterior wall, either by the "countersink," which I used, or by the surgical engine. No special trephine is necessary. The operation is easy, effective, and harmless, and its results leave nothing to be desired.

PROSTATIC CALCULI;

THEIR PROBABLE CAUSES, WITH NOTES OF
REMARKABLE CASES.¹

BY CLAUDIUS H. MASTIN, M.D.,
OF MOBILE, ALABAMA.

THERE are very few subjects connected with medical science, which are involved in more obscurity than calculous diseases; and none which prove of more interest to the practical surgeon. Renal and vesical calculi have, from the earliest history of our profession, offered a fertile field for pathological research; and those minute concretions which form within the follicles of the prostate gland—although differing in their chemical constituents, and manner of formation from urinary calculi—have proved especially interesting, since their true cause has, as yet, not been thoroughly understood.

These minute concretions being at first almost microscopic in size, gradually increase, yet rarely acquire any considerable dimensions; seldom becoming larger than an ordinary pea. Still they aggregate in considerable numbers, studding the follicles of the gland, or when increasing in size, they break down its parenchyma and collect in distinct cysts. They increase in size doubtless from a deposition upon their surface, and when not escaping from the follicles they induce absorption of the tissue by direct pressure, and thus come into contact, forming considerable numbers collected together in one or more distinct pouches. Usually we find several calculi, each seated in a separate duct; these are generally quiescent and give no evidence of their presence; doubtless they frequently escape along the ducts of the prostate into the urethra and the bladder, and are washed out by the urine. Again, numerous concretions increasing in size collect together in a cyst, attain quite large dimensions, light up considerable irritation and inflammation, produce severe constitutional disturbance, terminating in abscess with ulceration, and are discharged either through the rectum or the perineum. It is possible that sometimes they may find their way into the bladder, and if not discharged with the urine may become the nucleus of true urinary calcu-

¹ Norm. u. Path. Anat. der Nasenhöhle.

¹ Read before the American Surgical Association, April 30, 1884.

lus: this, however, is not probable, since we seldom if ever find calculi having a phosphatic nucleus encrusted with the lithates.

The accepted opinion as to their formation is, they have their origin in an oval vesicle of a single wall of homogeneous membrane, which is occupied by a colorless, finely mottled substance, in the centre of which, a nuclear corpuscle occurs. Their mean diameter being about $\frac{1}{100}$ th of an inch, until gradually increasing in size, the envelope still being visible, the amorphous matter begins to be arranged in layers concentric to the cell-wall: still further on in their development, the vesicles gradually increase in size, until their diameter reaches $\frac{1}{20}$ th of an inch, or even more, continuing to show the concentric layers, which are now more developed on one side than the other, seeming like so many repetitions of the original envelope, the intervals between the layers being occupied by a finely mottled deep yellow or red substance. There is, within them, a central cavity which corresponds to their external contour in form, being triangular or quadrilateral with rounded angles.

Such is their usual and normal appearance, from which however, there are numerous variations showing a change of form and internal arrangement which makes them seemingly to occupy an intermediate position between organic growths, and inorganic concretions: like the former they are vesicular in their origin, and in their gradual growth, which appears to take place chiefly from the dilatation of the vesicle and successive deposition in its interior; on the other hand, they simulate inorganic substances in their shape, in their tendency to become infiltrated with earthy matter, and in their disposition to pass into the condition of a dead amorphous mass of a deep yellow, almost black substance.

It is a little remarkable that their chemical composition varies in the various stages of their development, and is, at all times, widely different from either renal or vesical calculi. At first they consist of little else than animal matter, gradually acquiring, but only when in a state of degeneration, calcareous salts, which, according to the analysis of a number of chemists, and especially that of Lassaigne, is—in 100 parts—

Basic phosphate of lime	84.5
Carbonate of lime	0.5
Animal matter	15.0

100

On the other hand, we find that vesical calculi have a distinct nuclei upon which crystalline and amorphous deposits—more properly termed by Dr. Vandyke Carter “submorphous structures”—settle, and become embedded together in a colloid matrix, thus forming calculous masses. We also know that, when we come to examine the chemical constituents of different collections of renal and vesical calculi, we find three-fifths of all calculi met with in adults, of all ages, are composed of uric acid and the urates; whereas not quite two-fifths are phosphatic, while only some three or four per cent. of the whole number are oxalate of lime. Three-fifths, then, are the products of urine abounding in an acid, of which

they are the expression; the remaining two-fifths are the products of urine, generally alkaline, mostly ammoniacal, of which they are the result; being, as a rule, ammoniaco-magnesian phosphates. It follows, then, that the urates, the oxalates, and a few of the phosphates—those which are formed within the kidney—must be the result of certain constitutional derangements; whilst, on the other side, the mixed phosphates are produced solely within the bladder, and are a consequence, not of constitutional, but of local disease: this is usually a sequence of enlarged prostate in men who have passed the prime of life; that steadily progressive sequence of pathological changes incident to advanced life, which favors the formation of phosphatic deposits within the bladder. For whenever the outlet to the bladder is obstructed, and the urine retained, it rapidly passes into a state of decomposition, eliminating free ammonia which lights up and increases a cystitis; now alkaline pus is secreted in abundance, and when formed it quickly gives up its soda to the lightly held phosphoric acid of the acid phosphates of ammonia and magnesia of the urine, which earthy substances, held in solution only by an excess of phosphoric acid, are rapidly precipitated as insoluble phosphates. When the pus is changed by the action of the liberated ammonia—as above mentioned—it is, together with the mucus of the bladder, converted into an adhesive colloid medium, which cements together the insoluble ammoniaco-magnesian phosphates into a mass, and thus forms the ordinary phosphatic concretions found in the bladder.

Very different appear to be the causes which produce prostatic concretions: instead of being sedimentary, so to speak, the deposition of their earthy material is doubtless the result of a deranged action of a mucous membrane, not a consequence of absolute disease, but, more properly speaking, should be considered indications of a trifling derangement in the secreting functions of the gland itself: or, as suggested by Virchow, is the consequence of the dissolution of the elements of the prostate, furnishing a fluid which, by the gradual formation of deposits, produces these amyloid bodies—bodies closely analogous to the corpora amylacea of the nervous system.

As their chemical composition is so widely different from that of true urinary calculi, being chiefly phosphate of lime, a substance, which appears never to be deposited in an unmixed state from the urine, it is evident that we can always readily distinguish them from those of urinary origin.

Without, however, consuming time with the bibliography or literature of the subject, I desire to call attention to one or two remarkable instances of large prostatic concretions which have been placed on record, before I present to the Association the clinical history, together with the specimen removed from a case, which during the past month has occurred within my observation.

Perhaps the most remarkable example, of which we have any record, is the one reported by Dr. T. Herbert Barker, of Bedford, England; a description of which is to be found in the *Transactions of the Provincial Medical and Surgical Association of England*, vol. xv. new series vol 3. pp. 235-242.

The patient, a farmer's laborer, aged 26, called upon Mr. Barker on the 25th of October, 1843, suffering from complete retention of urine, with considerable pain in the urethra, and especially in the perineum. He had a fistulous opening in the under side of the penis toward the left, about three inches from its extremity, from which a purulent fluid was discharging: there was a deep-seated hardness discovered upon pressure of the perineum, and a distinct crepitation detected upon moving the mass from side to side, as if produced by the limited rubbing of calculi impacted together. A rectal examination revealed considerable enlargement in the region of the prostate gland, and a similar crepitation was also felt as far as the finger could be introduced. All that could be learned of his previous history was, that since childhood, when four years of age, he labored under incontinence of urine, which had continued to the present time, rendering him offensive to society, and causing him, long since, to abandon it as much as possible. Until recently he had never suffered any severe pain, nor had his urine ever found any other outlet save through the natural channel, although recently the fistulous opening had made its appearance.

Mr. Barker removed the mass of calculi through the ordinary lateral incision, to the left of the perineum; they proved to be twenty-nine in number, weighing collectively 3ij, 3iv, gr. j=1681 grains Troy.

This collection of calculi is put upon record as one stone, which is not absolutely correct, since the mass was composed of distinct calculi, twenty-nine in number, cohering together by curved faces and easily separated into distinct concretions. The mass measured four inches and seven-hundredths in length, being very much larger at one end than the other, the larger end occupying a cyst within the prostate, from which it extended forwards into and along the urethra. An analysis of the largest calculus, made by Dr. Golding Bird, shows it to be identical in composition with those concretions which are occasionally found in glandular structures, consisting of phosphate of lime with a rather larger proportion than usual of the ammoniac-magnesian phosphate: clearly showing that it differed, in a measure, from the usual composition of pure prostatic concretions.

A similar stone, said to be of analogous composition, but with no definite history, is catalogued as Specimen No. 2148, in the extensive collection of Guy's Hospital.

The second largest concretion of which I have found any authentic mention is in the Museum of the Royal College of Surgeons of London—specimen marked H, No. 13. This, like the one of Mr. Barker, cannot strictly be considered a calculus, since it is composed of four distinct calculi, being regarded as a single one simply because the four portions—one large and three small—were coapted by smooth surfaces, although separate within the prostate. According to Prof. Owen, this so-called prostatic calculus, composed of four pieces, and having articulating surfaces, was taken from a cyst within the prostate, which cyst communicated, through an opening, with the bladder, into which one of the calculi protruded about one-tenth of an inch. The weight of this quadrified calculus is 575 grains, and it cannot properly be called anything else than a secondary prostatic calculus, or calculi, since there was a connection between the cyst and the bladder cavity; and the analysis of Mr. Owen

clearly proves it to be composed of salts deposited from the urine, and not of prostatic origin, being of mixed phosphates, with the urate of ammonia and carbonate of lime.

Quite a number of cases of large urethral calculi are on record, but as they were of either renal or vesical origin, and their chemical constituents purely urinary, they do not pertain to the subject under consideration, and hence I make no reference to them.

Mr. Crosse, of Norwich, England, who has given to the profession a most admirable "Treatise on the Formation, Constituents, and Extraction of Urinary Calculus," devotes some space to the consideration of prostatic concretions; and, although mentioning several instances of large vesico-urethral calculi, does not speak of any case analogous in size or composition to the one mentioned by Mr. Barker, or the specimen in the Museum of the College of Surgeons. In fact, the cases he speaks of are not true prostatic formations, but rather what I am pleased to term secondary prostatic calculi, being vesico-urethral, and due to the arrest of small stones in the prostatic urethra during their transit from the bladder; all of them being composed of mixed salts, conclusively showing them to be of urinary origin.

Hence, not having been able to find on record an instance in which a single stone (one which a reliable analysis shows to be of prostatic origin), giving the size and weight of the one I now propose to present to the Association for inspection, I have thought it would prove interesting if I briefly furnish its history:

C. E. H., aged 46, a merchant by occupation, of fine physique, born in Mississippi in 1838, went to Virginia when but a child, and has resided in that State, at Wytheville, since his infancy. Of good general health in youth, his first trouble began in 1855, when, at the age of seventeen years, he contracted a blennorrhagia, which proved persistent, yielding only after a long course of stimulating injections; from this time on he had no trouble as a consequence of his disease, until the winter of 1864, at which time, whilst in the army, he experienced some difficulty in urinating, especially after long and fatiguing marches; this continued until the fall of 1865, causing him to resort to dilatation of the canal, which gave him measurable relief, and he married four years after, in 1869. His first child was born in 1871, and a second in 1875. Soon after this date he again noticed difficulty when he attempted to pass his urine, and an examination showed that a stricture had formed, which would not yield to dilatation; his general health had been failing since 1873, and after the birth of his child in 1875 he had no more children, notwithstanding his sexual desires were unabated, and his wife in robust health. In 1877 he was first taken with absolute retention, and it was found impossible to introduce any instrument into his bladder, and the only relief which he obtained was from the free use of opium, hot hip baths, poultices, etc. After this attack of retention he had constant stillidium of urine—the overflow of a distended bladder; this caused him to seek the advice of a surgeon of Baltimore, but without relief, the stricture proving impermeable

to instruments, and he unwilling to submit to the operation of an external section. His health was now gradually failing, and during the year 1883 he was forced to retire from business, and measurably to exclude himself from society on account of his condition, being compelled to wear a urinal both by day as well as by night. In this condition he came to Mobile, in the early part of January of the present year, for the purpose of having me perform any operation which would possibly afford him a chance of relief, giving me the history which I have briefly told.

Examining his condition, I found him nervous, dispirited, a confirmed dyspeptic, generally broken down in constitution, although his habits were good, and he informed me he had never been intemperate. There was no history of any serious attack of illness, or of gout or rheumatism in his family; he had resided nearly all his life in a locality where hard water is drunk, and this may have been one, if not a chief factor of his dyspeptic condition, of his obstinate constipation, and the slight attacks of "bilious derangement" which he told me he was subject to.

A urethral exploration revealed a contracted meatus, and a canal narrowed from a normal calibre of 30 mm. to one of 25 mm., to the bulbar region, at which point I encountered a dense firm coarctation, through which it was impossible, by any manipulation which I could bring to bear, to pass the smallest size whalebone bristle. Not being in a condition to undergo an operation, I concluded to put him under a course of treatment calculated to brace up his general health, and when able to stand it, I would perform external perineal urethrotomy without a guide; it was not, however, before the 4th of March following that I found him in a condition for the same; and on that day he was placed under the influence of an anæsthetic, and in the usual cystotomy position. I then introduced a small bristle guide down to and into the coarctation, with the hope of being able to glide upon it a tunnelled staff, which would enable me, with precision, to open the urethra directly upon the face of the stricture. This I was unable to do, for although the guide passed into the stricture, when it reached the prostatic portion of the canal, its passage was arrested, and the presence of the stone at once made manifest. I had not then suspected any complication of the kind, and even after the stone was touched I naturally concluded it was only a small vesical concretion which had been arrested in the sinus of the prostate; for I had carefully examined this body through the rectum, which, with the exception of an unusual degree of hardness, gave no other evidence of any foreign body being contained within it. Unable to effect anything with the guide, I cut directly down upon the point of the staff, in the median line of the perineum, trusting to my knowledge of the anatomy of the region in opening up the membranous urethra to the apex of the prostate. I thought I would be able to extract the calculus and complete the operation, as is usual in cases of perineal section. In this I was foiled, for a careful examination now revealed the fact that the concretion was large and solid, filling the entire central portion of the gland, from which I was unable to remove it with the forceps, and was compelled to extend the

incision downwards to the base of the prostate, and with two fingers in the rectum dislodge the stone, as after the old method of cutting upon the Gripe. After its removal I made a careful digital examination of the cavity, which it had occupied, and found the gland structure almost gone, a cyst remaining, which seemingly was limited only by the capsule of the gland; the opening of the urethra into the bladder was not enlarged, nor was there any abnormal opening into that viscus. A little pressure enabled me to pass my finger into the bladder and explore it thoroughly: there was no contraction of its walls, and no appreciable diminution of its normal size, which somewhat astonished me, as it is usual in those cases in which the inner mouth of the urethra is obstructed, causing an arrest of the urine, with constant stercidium of the same, to find the bladder walls thickened and its cavity lessened in size.

The patient reacted well—although at first he bore the anæsthetic badly—and went on to a favorable convalescence, the wound having almost healed, and he expressed himself as being vastly more comfortable than for fifteen years past; when, unfortunately, on the 19th, fifteen days after the operation, he indulged his fancy in a bowl of stewed dried peaches, which produced a violent attack of cholera morbus, which in his enfeebled condition speedily passed into collapse, and he died within twelve hours.

The calculus is very like, in size and shape, a normal adult prostate, it being, in fact, a perfect casting of the expanded cavity of the gland; and, from its chemical composition I feel justified in believing, had its origin first within a follicle of the gland, and, escaping into the sinus prostaticus, became arrested, and from continual accretion attained its present size, producing, by its pressure, gradual and regular absorption of the gland itself.

Its weight is $3\frac{1}{2}$ + grs. x—or, in round numbers, 430 grs. Troy; a concretion of very fair average, even for a bladder stone, and one which ranks among the largest of single prostatic calculi. Fragments which were broken off in the attempts to use the forceps for its removal, were sent to Prof. T. G. Wormley, of the University of Pennsylvania, who carefully examined them, and wrote me as follows: "I find it composed entirely of calcium phosphate, or *phosphate of lime*; the specimen is a very interesting one."

As will be seen upon inspection, the stone has not been sawn open, and hence I am unable to say what the nucleus is; but from the constituents of its cortical portion, and its concentric and regular layers, I feel very well assured that the concretion is one purely prostatic in its origin.

Daily Record. March 5.—8.30 A. M. Patient rested well last night, and expresses himself as feeling very well, indeed. His urine is passing *via* both the urethra and the wound. Pulse 96; temperature $98\frac{3}{4}^{\circ}$. 5 P. M. Has spent a quiet day; comfortable; his urine still passing in normal quantity, and very much clearer than before the operation. Pulse 92; temperature $100\frac{1}{4}^{\circ}$. Doing very well.

6th.—11 A. M. He rested very well last night, and general condition is good. He had a natural

action from bowels this morning, and from a little swelling of the wound, the most of the urine passes along the urethra. Pulse 96; temperature 100°. Doing very well. 6 P.M. No change in pulse or temperature; has spent a comfortable day.

7th.—11 A.M. He slept quietly all night; had some desire for food, and said he would fancy a little port wine. Had a good, free action from bowels, and was very comfortable. Urine passing both ways, but more through urethra; this is due to the slight swelling of the wound. Pulse 96; temperature 100½°. 6 P.M. He has been doing very well all day, and says he feels extremely well. Ate more than any day since the operation, and took about 3iv of port wine. This, doubtless, ran up his pulse and temperature, although general condition is good. Pulse 100; temperature 101¼°. Ordered calomel, gr. j; sugar, grs. x—at bedtime; also, ʒjss of bromide of sodium.

8th.—11 A.M. He spent a very comfortable night; slept well. Calomel operated well. He is passing urine at will, through both wound and urethra. Some slight suppuration of wound. Pulse 92; temperature 92½°. 6 P.M. No change of condition; expresses himself as very comfortable. Ordered bromide of sodium, ʒjss, at night.

9th.—10 A.M. Slept well; very comfortable. No action from bowels this morning. Urine passing at will, through wound. General condition good. No urine passing save when he has the desire. 4 P.M. This afternoon he is doing well, but there is more heat and rise of pulse. He ate some cooked oysters, which did not agree with him so well. Pulse 96; temperature 101½°. Ordered bromide at night.

10th.—9 A.M. Not so well this morning; no action from bowels since 8th. Says he feels very well, but languid. Pulse 104; temperature 101°. Ordered calomel, gr. j; sugar, grs. x. 4 P.M. Very little change in condition; no action as yet from calomel. Left him to await action of calomel, and then take his bromide at bedtime.

11th.—9 A.M. Calomel acted very well. He slept quietly; feels very much better this morning. Pulse 100; temperature 99½°. Ordered light but nourishing diet, and quiet. 5 P.M. Spent quiet, comfortable day, and is feeling very well. His general state is good. Temperature almost normal; pulse 90. Urine passing *via* the wound at his efforts to micturate, but the greater portion passes the normal way. The wound is closing, with healthy granulations, and shows some slight pus secretion.

12th.—He is doing so well to-day that I told him he could sit up in arm-chair, as a rest, if he desired it, and that I would not make the regular afternoon visit.

13th.—Still doing well. Slept well; very much better. Almost all the urine passing per urethra, and he expresses himself as so much better than for years past that he hopes to be perfectly well again.

14th.—Patient steadily improving, and from this date on to the 19th, the case record shows nothing worthy of mention. On the afternoon of the 18th, he was doing so well that I informed him there was

no necessity for me to make stated visits, and that I would caution prudence and care, and that he would soon be in a condition to return home. The sequel has been told; an indiscretion in diet brought on the attack of cholera morbus which closed the scene.

THE PATHOLOGY, ETIOLOGY, PROPHYLAXIS, AND TREATMENT OF PUERPERAL FEVER, FROM THE VIENNA STANDPOINT.

(Concluded from vol. xlv. p. 468.)

By W. W. JAGGARD, M.D.

ADJUNCT PROFESSOR OF OBSTETRICS IN THE CHICAGO MEDICAL COLLEGE.

IV. TREATMENT. In the event of systemic infection, treatment is of a general and local character. General treatment is symptomatic. The cold-water bath, ice or wet-pack, rectal irrigation, quinine, sodium salicylate, and alcohol are the only reliable antipyretics.

The cold-water bath is employed, as indicated by Liebermeister in 1871, in sthenic cases, when the fever is intense and of long duration. The patient is placed in the bath, with the water's temperature at or below 20° C., allowed to remain ten minutes, removed without drying, and wrapped up in bed. Upon withdrawal from the bath, a glassful of wine, or other mild stimulant, is usually exhibited. A cold bath of brief duration is more effective in the reduction of temperature than a longer continuance in warmer water.

The gradually cooled baths of Ziemssen, in which the temperature of the water is gradually lowered from 35° C. to 22° C., is useful in asthenic cases. Cold wet-packs are well borne by the feeblest patients, especially when the feet and legs are not covered.

Four wet-packs, each one lasting from ten to twenty minutes, in succession, are about equivalent in effect to one cold-water bath of ten minutes duration. Ice-bags, applied to the inguinal regions, are important adjuvants to the wet-packs. Cold spongings, compresses, ice-bags, drinks, enemata, are ineffective when employed to the exclusion of more positive means.

Continuous irrigation of the rectal mucous membrane, with cold water, by means of a double tube, is an effective measure in the reduction of temperature.

Quinine is exhibited in conformity with Liebermeister's views, that in persistently high temperature, it is only then of decided antipyretic action, when given in large doses, 1½ to 2½ grammes, in the course of one-half to one hour, not repeated within forty-eight hours. According as the first dose has or has not effected reduction of temperature to the normal, the second dose, at the expiration of forty-eight hours, must be smaller or larger, respectively. Powdered digitalis, ¾ to 1½ grammes, exhibited, at intervals, during the second twenty-four hours, is reported to have an important adjuvant action, when the maximum first dose of quinine has been ineffective. When the fever is of a decidedly remittent, or intermittent type, the indications for quinine are decidedly less urgent.

Sodium salicylate is an effective antipyretic; it is usually better retained than quinine, and is very much cheaper. For these reasons, it is extensively employed in the Vienna Obstetrical Clinics. It is customary, in the beginning of puerperal fever, to administer 3 to 6 grammes of sodium salicylate, in divided doses, during twenty-four hours, and to continue this treatment until the temperature returns to the normal. When quinine and sodium salicylate are not retained by the stomach, they may be exhibited, upon the addition of a little opium, by the rectum, in the form of clyster or suppository, with very slightly diminished physiological action.

Digitalis is seldom employed as an adjuvant antipyretic, while veratrin and *eucalyptus globulus* have received positive condemnation, the former, as dangerous in affections of a distinctly adynamic type; the latter, as totally ineffective.

It has been conclusively demonstrated by extended clinical study that night is the time best adapted to the application of antipyretic agents. Not only is the full physiological action of therapeutic measures more easily established during this period, but also sleep, especially after midnight, is usually gained.

Alcohol fulfils numerous indications. It is an important antipyretic, analeptic, and dietetic agent. The researches of Binz, Breisky-Konrad, Schroeder, Spiegelberg, and Carl Braun go far to establish the truth of this statement. It limits metabolic activity, and consequently the formation of urea and carbonic acid.

"It has, in addition to the stimulant effect, a certain conservative action, and is, therefore, adapted to cases of cardiac debility or paralysis" (Braun).

Rum, containing about seventy-seven per cent. of alcohol, is an eligible form, as producing the maximum effect with the minimum dose. It may be given in teaspoonful doses, every half hour, alone in combination with quinine, or tea, constituting the favorite Continental beverage, "Russian Tea," according to indications. A good cognac, containing fifty per cent. alcohol, or average table wine, containing ten per cent. of alcohol, is frequently employed.

Buss (1878) proposed a fever diet, which has given great satisfaction.

The formula is:

	Grammes.
Beef peptones	100
Grape sugar	300
Cognac or rum	200
Water	300

This quantity of food is administered during twenty-four hours, and may be reinforced by milk, wine-soups, or the famous *bouillon* with egg.

A systematic plan of treatment, combining cold-water baths, wet-packs, quinine, sodium salicylate, and alcohol, is productive of happier results than exclusive reliance upon one or two therapeutic agents.

Considerable difference of opinion, as regards local treatment, exists at the present time in Vienna. As antiseptic methods have received greatest attention and achieved best results in Carl Braun's wards, his views and practice will receive exclusive mention.

In the beginning of puerperal fever, the vagina is thoroughly irrigated with a two to three per cent. solution of carbolic acid, and the vulvar, vaginal, and cervical wounds are treated topically with a five to ten per cent. solution of the same acid.

Braun's methods of treating the uterine cavity have undergone important modifications within the past few years. In the last edition of his work on gynecology, he joins with Olshausen in his protest against intra-uterine irrigation as an inefficient, meddlesome, and dangerous procedure.

At the present time, however, intra-uterine irrigation is invariably practised, immediately upon the completion of the third stage of labor, when indicated by *endometritis sub partu*, bad-smelling and discolored amniotic liquor, dead or macerated foetus, invasion of the cavity of the uterus by the hand or any instrument.

During the *puerperium*, the uterine cavity is irrigated when there is positive evidence that it is the source of infection. The antiseptic irrigating fluid is a lukewarm dilute solution of thymol; the quantity injected into the uterine cavity at one time is limited to one litre; the number of irrigations, in twenty-four hours, is determined by consideration of the individual cases, but rarely exceeds two.

Infinite care is taken to exclude air from the conducting tubes, and after each vaginal or uterine irrigation a *bacillus*, containing five grammes of iodoform, is placed within each canal.

Routine intrauterine irrigation, injection of carbolic acid or salicylic acid solutions, continuous irrigation with acetic clay (Brunz, 1878), drainage of uterine cavity (J. Veit, 1879), drainage of uterine cavity with ice-cold water (Schroeder, 1879), are methods of local antiphlogosis, which have received most decided condemnation.

Gentle friction, or massage, applied through the abdominal walls to the fundus, at regular intervals, aided by the binder and ergot, is of benefit, when not contraindicated by excessive tenderness upon pressure.

In cases in which a considerable area of the vulvar, vaginal or cervical expanse is involved in an ulcerative or gangrenous process, the continuous lukewarm water bath of Hebra is an invaluable method of treatment. Hebra's water-bed consists of an ordinary bath-tub, in which an iron frame is suspended by chains; upon this frame, suitably covered and provided with a pillow, the patient is placed; by means of a crank she can be lifted up out of the water and returned again, according to necessity. The bath is filled with water at a temperature of 30-31° C., and the patient, perfectly nude, is caused to descend until the water covers every portion of her body, except the head. The temperature of the water is then rapidly elevated to 38-40° C.

She remains in this bath day and night, except when withdrawn for the purpose of evacuation of bladder or rectum. The water is kept at a constant temperature, and is continuously renewed.

Weeks and months are frequently spent, with an extreme degree of comfort, in this water-bed. In the words of Billroth:

"The water protects the wound surfaces from con-

tact with the atmospheric air, prevents decomposition of the sphacelus, favors its separation; it makes every dressing, and every change of dressing, unnecessary; limits the secretion of pus, and hastens cicatrization."

MEDICAL PROGRESS.

COMBINED VERSION IN PLACENTA PRÆVIA.—C. BEHM has used combined version in forty cases of placenta prævia, without a single death. This must be regarded as an extraordinarily good result for a condition which ordinarily gives a mortality of forty per cent. Hofmeier has already obtained similar results in the treatment of placenta prævia.

The operation is performed as follows: When dangerous hemorrhage comes on the vagina should be tamponed until the cervix is closed. This being done, and the woman anaesthetized, the whole hand is introduced into the vagina, and two fingers into the cervix. If the membranes present, the operator endeavors to rupture them with the finger, then draws the presenting part (unless it be the buttocks) to one side, at the same time making pressure from without so as to carry the buttocks down, until he can grasp a foot. This is drawn through the cervix, so that the breech acts as a tampon on the lower segment of the uterus, and the placenta is pressed against the sides of the uterus. In central implantation of the placenta, the finger should be pushed through the centre.

After this version the operator waits for the spontaneous expulsion of the child, or at least complete spontaneous dilatation of the cervix, in order to complete delivery. The duration of labor after version is between one-half an hour and eleven hours, the average being one or two hours.

The mortality for the children by this procedure is very great, but the chances for the mother are better. The mortality for the children is, however, no greater than by the old operation.

The causes of the great mortality of the mother under the use of the continuous tamponade is the infection through the blood and other matters adhering to the tampon.—*Centralbl. f. d. gesammte Therap.*, July, 1884.

THE PHYSIOLOGICAL EFFECTS OF KAIRINE.—M. MORHOVETZ, of the University of Moscow, has recently made quite extensive experiments as to the physiological effects of kairine, and publishes (*Medicinsk. Obosrenie*, No. 9, 1884) the following results:

The physiological action of kairine is not simply confined to lowering the temperature. The changes which gr. $\frac{1}{10}$ of kairine will cause in the blood are enormous. In his experiments, Morohovetz used kairine dissolved in a six per cent. solution of common salt, so as to avoid the action of distilled water on the red globules. The blood remained alkaline, but its color changed as soon as a more concentrated solution was used. A continuous current of air deprived of carbonic acid did not restore the red color of the arterial blood. The blood-spectrum was also changed by the concentration of the kairine, and contained four methæmoglobine lines, situated between the C and F lines.

Under the influence of kairine, the blood-globules formed roulettes, at the same time that the middle part protruded from one side to the other. The number of globules does not diminish. The blood of a dog which has taken kairine coagulates almost immediately after it comes out of the vessels. Under the influence of kairine, the red globules of the blood, while preserving their quantitative proportion, undergo a quantitative and qualitative change in regard to the coloring matter; the hæmoglobine is transformed into methæmoglobine, which is precipitated. The change in the color of the blood of a living animal by cyanosis gives a peculiar leaden appearance. The same thing was noticed by Golouboff after the administration of gr. xj of kairine.

The glandular organs are also influenced by kairine. The saliva and bile flow more abundantly after kairine is injected into the blood, or introduced into the duodenum. The bile is viscid, and almost black. The pancreas and the kidneys are not influenced by kairine. It is eliminated by the kidneys, as shown by the action of fuming nitric acid on the urine; a bright reddish ring forms between the acid and the urine—a ring which is characteristic of kairine in an aqueous solution. When bile is normally excreted, this ring takes the spectrum colors, and the urine gives the greenish color-reaction of biliverdine.

The modifications of respiration and circulation are more rapid and pronounced as the quantity of kairine is increased. The direct injection of it into the blood causes an intense dyspnoea, accompanied by an elevation of arterial pressure in the carotid; this being followed by diminished pressure, shortening of the pulse-waves, and filiform pulse. After the ingestion of gr. xxv, the heart of the animal was arrested, and it died of cardiac paralysis, the respiration continuing for some time, and being of a Cheyne-Stokes character. At the autopsy, the cavities of the heart were found dilated and filled with blood. The classic experiment on the frog (ligature of a limb), showed that kairine acted similarly to curare on the peripheral ends of the motor nerves.

In experiments on dogs, Morohovetz found no notable abatement of temperature. The experiments of Filehne have shown that, to obtain a notable abatement of temperature, it is necessary to inject kairine continually; less than gr. iv produces no effect. But it is easy to exceed the required amount, and to throw the patient into such a state that his inspired oxygen is insufficient for his physiological necessities, as kairine deprives the hæmoglobine of a large quantity of its oxygen. Morohovetz terminates his paper by counselling great prudence in the administration of kairine; he considers pulmonary and cardiac affections, and anæmia as absolute contraindications to the administration of kairine.—*L'Union Méd.*, July 10, 1884.

THE RISKS OF CORROSIVE SUBLIMATE INJECTIONS.—The unfavorable cases are beginning to be reported of the use of corrosive sublimate, as what we know of idiosyncrasy leads us to expect in the use of any powerful remedy. In *Schmidt's Jahrbücher* (Bd. ccii, No. 4) some such instances are related. Professor Stadtfeldt, of Copenhagen, while admitting its efficacy in most cases, is yet evidently somewhat afraid of it, especially as entrusted to midwives during labor. In the puerperal state, he used it with excellent results in six consecutive

cases, but in the seventh the effect was as follows: The patient, a twenty-three year old primipara, had a retained placenta, which required artificial removal. Uterus and vagina were at once washed out with carbolic solution. Four days afterwards there was a chill, with temperature of 39°C . The next day a solution (1-1500) of corrosive sublimate was injected. After about 300 to 400 grammes of the solution had run out, the patient suddenly complained of headache and difficult breathing. Her replies were somewhat uncertain, but consciousness was undisturbed. Some pains came on in the hypogastrium; the whole lower abdomen was tender, but not swollen. After a time, a profuse sweating came on, and the pains ceased. There were heaviness, giddiness; stools thin; tenesmus; urine highly albuminous; no fever; temperature subnormal. In the course of the next day the most important symptoms were vomiting, thin stools, with tenesmus, great thirst, and headache. The fifth day after the use of the injection the urine stopped, the consciousness became clouded, and the patient died quietly on the next.

Of course, the cause of death was not at once certain, but an autopsy showed no peritonitis. Numerous ulcerations were found in the large intestine. The kidneys were much altered. Mercury could be detected in no organ. Stadfeldt considered it a case of death from mercurial poisoning.

In another instance a woman was operated upon for prolapsus of the vagina and rectum. During the operation, which lasted one hour and a half, the flaps were washed from time to time with a 1-1000 solution of sublimate. The next day the vagina and anus were washed with the same solution, which was also injected into the rectum. On the sixth day the patient complained of great pain in the mouth. The gums were seen to be inflamed. There was much salivation. The use of the sublimate was stopped, and vigorous treatment directed to the mouth, after which the symptoms vanished in a few days.—*Boston Med. and Surg. Journ.*, July 24, 1884.

NEW TREATMENT OF ULCER OF THE STOMACH.—Simple ulcer of the stomach, the ulcer of J. Cruveilhier, which is often called the round ulcer, is one of the most rebellious affections to therapeutic measures. Why is it that this *simple* ulcer, as it is called, persists for months and years without cicatrizing? What cause presides over the formation of the ulcer, and what influences preside over its development, its chronic course? If one wishes to give to these questions a truly scientific solution, he is obliged to acknowledge that there is something connected with its origin and course, which is still unknown. The theories of thrombosis, embolism, and of inflammation, if they explain the losses of substance, and the ulcerations of the mucous membrane, do not explain the form and characters of the round ulcer. So far as the action of gastric juice is concerned, if it contributes to the progress and extension of the ulcer by a sort of digestion, why is this digestion limited so often, and not cause fatal perforation and destruction of the stomach. It would seem that the acid reaction of the gastric fluids has a bad effect, since so much good has been done by alkalines and Vichy water.

The treatment of these ulcers is a more simple matter than the pathogenesis. The beneficial effects of strict diet have long been recognized, especially of the milk

diet. But there are serious objections to the milk treatment. A person with ulcer of the stomach should take, if put on the milk diet exclusively, three or four quarts of milk every day. This enormous quantity may be well tolerated, and the gastric pains, the vomiting, and hemorrhages may cease. But one cannot with impunity introduce into a sound stomach, much less into one in bad condition, four quarts of liquid a day, without causing dilatation of the stomach. Without doubt, this can be in a manner obviated if the patients be not allowed to take much milk at a time. But the morbid state and atony of the stomach make digestion more slow and difficult. If to this we add the fact this dilatation of the stomach may cause hemorrhage and perforation of the ulcers, it is easily seen that the milk diet may be a source of great danger.

For a long time M. DEBOVE has paid special attention to means for reducing the quantity of milk ingested. For this purpose he has used concentrated milk and powders of milk, representing, in small volume, considerable quantities of milk. But these have not the nutritive value which is found in meat powders. It has been objected to M. Debove's theory, that the dilatation of the stomach which he attributes to the quantity of the ingesta is due to the affection itself, to the ulcer of the stomach. But, as Bouchard has seen, who has for a long time recommended a dry diet for dilatation of the stomach, and as Debove has also seen, the dilatation disappears under the influence of this regime alone, so that it cannot be due to the ulcer.

The dry diet of M. Bouchard consists in the administration of food very finely divided, or very divisible, as powdered meat or cheese, and at the same time very nutritive. While the amount of dry food is reduced, only a minimum quantity of liquid is allowed, about a pint of water, or wine and water, in twenty-four hours. On this diet the stomach is never distended by food, and the dilatation diminishes or disappears. It is by this dry diet that M. Debove treats ulcer of the stomach; but he adds an important factor to it. Before commencing treatment he washes out the stomach, in order to clear away the mucus, and the *débris* of food which may be there. This washing is done with a rubber tube by the physician himself, as a little carelessness in its use might cause hemorrhage. Duguet has reported a fatal case of hematemesis, caused by the patient attempting to use the tube himself. Debove has never had a case of hemorrhage attributable to the use of the tube, but he very justly remarks that hemorrhages are quite frequent in ulcer of the stomach, and that when the tube brings up "coffee-grounds" blood it cannot be said that the hemorrhage was caused by the washing. If, however, during the washing the liquid brought up has a rosy tint, the operation should be at once suspended.

M. Debove believes that if gastric digestion and the action of the gastric juice can be suspended for some time, the cure of the ulcer will be greatly favored. By rendering the gastric juice alkaline its digestive properties are taken away, and the transformations of albuminoid substances into peptones is stopped. In this manner the matters undigested by the stomach pass into the intestines with an alkaline reaction very favorable to intestinal digestion. Debove has obtained effects which lead him to believe that he can make a

patient take 3vij of bicarbonate of soda, in three doses, in twenty-four hours. He has shown, by his washings of the stomach, that under the influence of this treatment, the stomach liquids were never acid, and contained no peptones. The patients were given 3vjss of meat powder, and 3ijss of bicarbonate of soda three times a day. This mixture not being very agreeable to the taste, is introduced into the stomach through the tube. To this diet, which represents 3lxx of meat and 3vijs of bicarbonate of soda a day, is added a quart of milk, taken in small quantities during the day.

The *alkaline cachexia* which Trousseau and other physicians have spoken of was seen in none of Debove's patients. This treatment has given most excellent results; results which have never been attained by any other method of treatment.—*Le Progrès Méd.*, July 12, 1884.

HETEROPLASTY.—L. VON LESSER, in an article on the retention of catgut in the organism, and on heteroplasty, gives the results of his experiments on the healing up of foreign bodies in tissues, and the filling up of tissues, and especially of bone cavities, with cork, gum, and lead balls (heteroplasty); he also made experiments in replacing tendons by elastic threads. In the insertion of such foreign bodies into trephine-openings in the roof of the skull and in the tibia, encapsulation only occurred when the wound was kept completely antiseptic; the cork being encapsulated much sooner than the gum. The greater number of the animals experimented upon died of sepsis. When the wound proceeded favorably the enclosed foreign bodies were found pressed out of the trephine-holes and encapsulated in the connective tissue, the trephine-holes themselves closed by a fibrinous membrane or diminished from the edge of the bone out through the marginal growth of bone. In case of sepsis the foreign bodies lay in abscess cavities, and were surrounded by caseous pus, the trephine-holes were surrounded by pus, and in one case had changed into pseudarthrosis. The fact that gum-plates healed up in laparotomy-wounds is one of gynecological interest, and upon which careful experiments were made. Caoutchouc plates were fastened behind the abdominal peritoneum with cutgut, so that the posterior side of the plate was toward the peritoneal cavity and the anterior lying against the parietal layer; it was left in this position for a day. The skin over the plate was sutured deeply and superficially, the muscular structure being sometimes sutured, and sometimes not. With the exception of one case, which, in consequence of wounding the intestine, died of perforating peritonitis, the course of the wound was usually favorable, but sooner or later knotty tumors appeared behind the abdominal walls in the situation of the laparotomy wound, which were found to be abscesses with caseous contents. The caoutchouc plates were found, on post-mortem examination, to be enclosed in connective tissue, from the serosa out; a part of the intestine at the seat of the wound was for the most part enclosed by the anterior abdominal wall, whilst there were no symptoms of inflammation in the peritoneum; in one case there was gangrene of the testicles on both sides. Pus was found partly collected on the anterior surface of the gum-plate, and partly collected in the connective tissue all around the plate; in one it had burrowed down to

Poupart's ligament.—*Centralbl. für Gynäk.*, June 21, 1884.

THE TREATMENT OF SPRAIN BY THE ELASTIC BANDAGE.—This method of treating sprains has recently been recommended by MARC SÉE. It is the only method which fulfils the two indications: 1. To cause as rapid absorption as possible of the blood extravasated around the joint (a lesion which controls all the other symptoms, such as pain, swelling, difficulty of movement, etc.); and, 2. To favor cicatrization of the torn ligaments and ruptured parts by complete immobilization.

The antiphlogistics and bloodletting, formerly advised by Hunter and Guersant, only partially fulfil the former indication. There is the same objection to the movements which Ribe and Bonnet advise for the injured joint. The refrigerants and cold-water baths advised by Baudens cause contraction of the tissues around the joint, and dispel the inflammation, but they are not favorable to the absorption of the infiltrated fluids. Even massage, though superior to the other remedies just mentioned, fulfils only the second indication; furthermore, it is inconvenient, and requires much patience and time; and between the seances of manipulation the swelling reappears and the pain returns. It is true that massage has the advantage of removing the extravasated materials from the region of the joint toward the more vascular portions of the limb, where they are more easily absorbed. But the elastic bandage has this advantage in a greater degree, since its action is continuous. Finally, and above all, it favors immobilization of the joint, which is impossible during massage, and without which it is almost impossible to get cicatrization of the torn structures and complete recovery in sprains of any intensity. The bandage should be applied to the skin itself, care being taken to fill up the flat and depressed places with wadding, so as to give a uniform surface around the joint for the bandage to act upon.—*Revue de Thérap.*, July 15, 1884.

TOTAL RETENTION OF THE PLACENTA.—The retention of a part or the whole of the placenta is a cause of grave trouble, both by causing hemorrhage and by the absorption of decomposing materials. One must not, however, regard a woman as necessarily lost if the placenta be entirely retained. J. FAVÉ reports a case to which he was called, seven hours after labor had terminated, in order to deliver the placenta. He found the uterus displaced, and every attempt to reach the placenta failed: on account of the feebleness of the woman he did not resort to instruments. Coffee and quinine were given for four days. The woman recovered, and became pregnant six months afterwards. Favé thinks it probable that the placenta shrivelled and came away at a menstrual period.—*Journ. de méd. de Paris*, July 19, 1884.

SPONTANEOUS RUPTURE OF THE BLADDER.—This case came under the observation of DR. LUGEOL, of Bordeaux, who reported it to the Société de Médecine of Bordeaux, in October, 1883.

The patient was thirty years old, and had a stricture dating about twelve years. Difficulty in micturition had existed for a long time, and, finally, he had complete retention. He made powerful efforts to urinate,

when he suddenly felt a violent pain in the left flank, which was accompanied by a chill. A few days afterwards, symptoms of a deep phlegmon manifested themselves. Lugeol made two deep incisions, one in the abdominal wall, and the other in the inguinal fold. These incisions gave exit to an enormous quantity of fetid pus and shreds of sphacelated tissue, which had a gangrenous and urinous odor. Three days later, he made a counter-opening on the other side of the abdomen, and put in a drainage-tube. Examination of the liquid which had flowed out of the first opening showed that it was urine. The patient passed urine through the urethra and the opening at the same time. There was, then, in this case, rupture of the bladder, extravasation of urine into the abdominal cavity, formation of a phlegmon, and a subsequent fistule. Lugeol then proceeded to make progressive dilatation, and, finally, to put in a sound, and leave it for several hours each day. The patient was cured.—*Journal de Méd. de Paris*, July 19, 1884.

PERSPIRATION OF THE FEET.—Perspiration of the feet is not a disease, but it is a great inconvenience, especially if accompanied by a disagreeable odor. Certain physicians think that there is no danger at all in suppressing this perspiration, and prescribe astringent lotions of oak bark, tannin, and other substances. Others hold that the infirmity should be protected, and prescribe only a non-toxic substance which will neutralize the odor. For this purpose, the following prescription is the best, and is very cheap:

R.—Permanganate of potash, . . . 1 part.
Distilled water, . . . 100 parts.
Thymol, . . . gtt. xxx (to 3ij of water).

Filter-paper, linen, calico, or cork or straw soles may be soaked in this mixture, and then dried. They are then cut of the desired size, and a pair placed in the shoes every day. The feet are not colored by the potash. If there is any color, a thin coating of the white of egg, collodion, or tincture of benzoin may be used on the false soles.—*Bull. Gén. de Thérap.*, July 15, 1884.

TREATMENT OF CYSTITIS.—DR. WILLIAM GARDNER, Professor of Gynecology in McGill University, Montreal, in a lecture on cystitis (*Canada Medical and Surgical Journal*, June, 1884), spoke of the value of injections of nitrate of silver, as follows:

You will find, by most writers, solutions of one to two grains to the ounce recommended. This is far less valuable than a much stronger solution, thirty or forty grains to the ounce, of which I have had some recent very satisfactory experience. Such a solution causes severe pain and vesical tenesmus for a few minutes, and it is well to be prepared with your hypodermic syringe when administering it, which usually must be at the patient's own home. Confinement to bed for a day after is advisable. I may here mention a case I recently saw. The symptoms were of several years' duration, and came on after confinement. During nearly a year I had tried a variety of astringents, with only slight benefit, but my attention was directed, during the winter, to the stronger solutions of silver nitrate by an article in the PHILADELPHIA MEDICAL NEWS. I resolved to try the remedy. The results were

most satisfactory. After two applications, the patient expressed herself as being better than for eight years. In this strength, the remedy ought not to be used oftener than once a week. Morphia has been injected to relieve severe pain. Solutions of one to two grains to the ounce may be employed.

DIAGNOSIS OF PERONEO-TIBIAL SPRAIN.—A case recently occurred in the service of M. Labbe, at the Beaujon Hospital, which well illustrated the difficulties sometimes encountered in the diagnosis between sprain at the ankle-joint and fracture of the fibula. There are four traumatic lesions which are usually found in this locality; 1. Tibio-tarsal sprain, properly so called, and, perhaps, the most rare; 2. Medio-tarsal sprain—these two varieties are easily distinguished from each other; but great difficulty is sometimes encountered in differentially diagnosing 3—Peroneo-tibial sprain, or distention of the ligament which unites the tibia with the fibula—from 4. Fracture, with tearing of the external malleolus. In order not to fall into an error which would be decidedly disadvantageous to the patient, it should be noticed that in peroneo-tibial sprain the ecchymosis is seen a little in front of the anterior border of the fibula, while in separation of the external malleolus it is behind the bone, in the depression which separates it from the tendo Achillis. With regard to the pain, in the case of fracture it is seated immediately over the bone itself; but in the case of the sprain, the greatest pain is found in front of the anterior border of the bone. It is in these cases that the elastic bandage has such excellent effects.—*Revue de Thérap.*, July 15, 1884.

THUYA OCCIDENTALIS IN CANCER OF THE UTERUS.—The tincture of thuya occidentalis has been praised at different times as an efficacious remedy for rebellious condylomata, venereal growths, etc. It has also given excellent results in cases of simple chancre.

Four years ago, J. CHERON, who had used the drug for a long time, was particularly struck by an inaugural *Thèse* by M. J. Menier. The treatment of vegetations by the internal administration of thuya occidentalis had given results which in his hands were absolutely conclusive. Cheron repeated Menier's experiments, and though he did not get such remarkable results, the curative action of the tincture in vegetations was equally well demonstrated. He found that vegetations covered with epidermis, especially those which have a semi-corneal consistence, are not affected by the internal administration of thuya, so far as their disappearance is concerned; though they do diminish in size and consistence. Vegetations developed on mucous membranes, however, disappear completely when thuya is given internally; this has been abundantly shown in a great number of cases. In a word, the epithelial hyperplasias of the vegetations yield to the internal employment of thuya, while the epidermic hyperplasias do not. As regards the use of thuya in epithelioma of the cervix, Cheron's experience with it, which has extended over several years, leads him to say that in a certain number of cases he uses the tincture internally only; in a second class he uses it externally only; and in the third class he uses it both externally and internally.—*Revue de Thérap.*, July 15, 1884.

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THE interest felt in the sessions of the International Medical Congress has widely extended since the famous gathering in London in 1881, and the proceedings of the eighth meeting now being held in Copenhagen are as eagerly looked for by the profession in this country as by their European *confrères* in whose midst it is convened. It therefore affords us great satisfaction to be able to lay before our readers a full summary of the proceedings up to Thursday, received by special cable dispatch from our own correspondent.

The meeting gives every promise of being successful, both as regards the number and eminence of the members in attendance and the character of the scientific work done, and we note with pleasure the presence of a goodly representation from the United States.

Next week we hope to be able to inform our readers that the Congress has accepted the invitation, that was presented on behalf of the American Medical Association by a special committee, which was appointed at the Washington meeting in May last, to hold its next session in this country in 1887.

THE SURGERY OF PULMONARY CAVITIES.

EXPERIENCE in the treatment of pulmonary pus-secreting cavities is very limited; but the past decade has shown, first, that in certain cases incision or paracentesis with drainage is unjustifiable; secondly, that in other cases one of these operations is impera-

tively demanded; and, thirdly, that there exist other cases in which the question of operative interference is not easy to decide.

The first group includes bronchiectatic cavities formed during the progress of pulmonary phthisis. The reported examples in which aspiration and the injection of medicated solutions, and incision with drainage have been resorted to, demonstrate that at the most nothing more than a palliative effect can be expected. In the majority of such cases the time has passed for doing any permanent good, and there is nothing in the operation to stay the resistless march of the disease, or prevent its extension to the adjacent lung-tissue.

In illustration of the truth of these statements, we may refer to papers read before the Congress of German Naturalists and Physicians, in 1873, by Mosler, of Greifswald, and before the American Medical Association, in 1880, by Pepper, of this city. In none of the cases was paracentesis with the injection of medicated fluids followed by positive results, nor was incision with free drainage more successful in the hands of Mosler. Thus, in one case in which the cavity was opened by an incision through the wall of the chest, the disease was found, on death a short time afterwards, to have spread to the neighboring lung-tissue, and to have produced general tuberculosis. In a second case, an external incision was made down to the pleura; the anterior wall of the cavity was carefully opened with a pair of forceps, the contents evacuated, and a canula inserted, through which various solutions were introduced, until the wound closed. Before the lapse of eight months, however, the patient was readmitted with all the signs of general tuberculosis, of which he died in six months.

The second group, or that in which interference is imperatively demanded, comprises suppurating echinococcus cysts, gangrene of the lung, and abscesses from ordinary causes. In a paper read before the Second Congress for Internal Medicine, at Wiesbaden, in 1883, Mosler exhibited a man, in whom, after a portion of the seventh rib had been resected, the sac was opened with the cautery, the parasites evacuated, and a drainage-tube inserted, through which antiseptic injections were made until the wound closed. He also referred to thirteen cases of a similar nature under his care, in which the great value of incision was apparent, and which will form the subject of a separate monograph. Fenger and Hollister, of Chicago, also had a recovery after incision of the lung and the extraction of an echinococcus cyst, which had caused an ichorous abscess. The report of the case may be found in the *American Journal of the Medical Sciences*, for October, 1881.

The first operation for gangrene of the lung was done by Lawson, of London, in 1879. Although the

symptoms were ameliorated, the patient died of exhaustion on the fourth day. The second operation was performed in the same year, by S. C. Smith, of Halifax, and the subject lived for ten days.

The third operation was done by Vogt on a patient of Mosler, in 1882. The case was that of a boy of fourteen suffering from septic fever and expectorating large quantities of pus mixed with shreds of dead lung-tissue, which proceeded from a cavity in the upper left lobe. One inch and two-fifths of the third rib having been excised, the lung was opened with Paquelin's cautery, and the gangrenous portions of the walls of the cavity were cauterized as thoroughly as possible, and the cavity well washed out with a solution of salicylic acid. A pair of long forceps was then passed downwards and backwards until the point was felt about an inch and a half below the angle of the scapula, when an incision was made over it, and four-fifths of an inch of the eighth and ninth ribs removed. The forceps was now used as a guide for the cautery, and a large cavity was entered, from which about ten ounces of very fetid fluid with numerous shreds of necrosed lung-tissue ran out in a stream. The walls of the cavity having in their turn been cauterized, an elastic drainage-tube was inserted, and the cavities thoroughly disinfected. At the expiration of a week the patient was dead, apparently from the effects of thymol and boracic acid, the application of which was followed by inflammation of the bronchial tubes, trachea, and larynx.

The fourth case of operation for gangrene is thus recorded by Mosler: "Under similar circumstances, Ed. Bull, of Christiania, attained a favorable termination. In a girl aged twenty-three, who suffered from putrid bronchitis, he succeeded in healing a gangrenous cavity by the operative treatment. In his case the cavity was likewise situated in the left lung."

The fifth case has recently been reported by Dr. Cayley to the Royal Medical and Chirurgical Society, and is recorded in the *British Medical Journal* for May 31, 1884. The patient was a girl of twelve who had gangrene of the base of the left lung, with pyæmic abscess secondary to suppuration of the mastoid cells. Mr. Gould punctured the lung with a large sized trocar and inserted a drainage-tube, through which fetid pus and a shred of necrosed lung were discharged. The child left the hospital cured eleven days subsequently.

The sixth and last case of which we have any knowledge has just been recorded by Fenger, in the *Journal of the American Medical Association* for July 19, 1884. A cavity in the right inframammary region having been detected by an exploring needle, an inch and a half of the fifth rib was excised, and the lung penetrated with the thermocautery. The cavity

was washed out with an antiseptic solution, and a drainage-tube inserted. The hemorrhage was trifling. The symptoms gradually improved; shreds of gangrenous tissue were discharged during convalescence; and the patient was out of his bed at the end of the fifth week.

In this group are also included abscesses resulting from the entrance of foreign bodies into the bronchial tubes. In the discussion which followed the reading of a paper before the Royal Medical and Chirurgical Society, by Mr. Biss, also published in the *British Medical Journal*, of May 31st, Mr. Fowler, narrated a case in which Mr. Marshall opened and drained the lung between the eighth and ninth ribs for an abscess formed around a molar-tooth which had slipped from the dentist's grasp into the lung. The tube was worn for five months, and at the expiration of a year there still remained mucopurulent expectoration, and other signs of a small cavity.

The third group comprises those cases in which the decision of the question of operation is attended with much difficulty. Thus in the case of Mr. Biss, Mr. Marshall incised the soft parts over the tenth intercostal space, passed a trocar to the depth of four inches, and inserted a drainage-tube through which puriform fluid escaped. In ten days, signs of a cerebral abscess appeared, and in another ten days the man died. The necropsy revealed a number of bronchiectatic cavities in the lung, the largest of which had been pierced and drained, along with two abscesses of the brain.

Two cases of a similar nature are recorded by E. Bull in the *Nord. Med. Arkiv.*, Bd. xiv. No. 26, and Bd. xv. No. 17. In the first, an incision carried along the upper border of the second rib opened a superficial cavern in the upper lobe of the left lung, into which a drainage-tube was passed. At death, on the seventh day, a cavern as large as a goose egg was found in the lung, which was the seat of cheesy pneumonia, along with seropurulent pleuritis and pneumothorax. In the second case a large bronchiectatic abscess was opened, partly with the knife and partly with the thermocautery, in the right ninth intercostal space. On death from exhaustion in four weeks, in addition to the large cavity, the lobes were found to be the seat of numerous bronchiectases.

A fourth case has recently been recorded by Lauenstein in the *Centralblatt für Chirurgie*, No. 18, 1884. One inch and a half of the second rib having been resected, a trocar was passed into a cavity in the apex of the right lung, the passage enlarged with a pair of forceps, and a drainage-tube inserted. The patient was discharged in forty-five days, and was perfectly well one year subsequently.

In bronchiectatic cavities the result of pneumonia, the great obstacle to operative interference is the difficulty in making the diagnosis between a single large

cavity and multiple small cavities. Indeed, with all of the physical signs present, it may not be possible to reach the cavern, as happened to Mr. Godlee in three instances. If, however, the disease be limited to a single abscess, as happened in the first case of Bull, and in that of Lauenstein, it would certainly be right to open and drain it. For this purpose, after a preliminary incision down to the pleura, a large trocar and canula would be preferable to the knife, on account of the diminished risk of hemorrhage.

A review of the facts here presented offers not a little encouragement for the future of lung surgery. The wholesome maxim, "ubi pus, ibi evacua," is just as applicable to the lung, as it is to the brain, liver, spleen, or other organ; and we hold that the surgeon is open to the suspicion of timidity who fails to do his duty with suppurating pulmonary cavities, provided they result from other causes than tuberculosis.

DILATATION OF THE STOMACH.

At a recent meeting of the Société Médicale des Hôpitaux, M. BOUCHARD read a communication on the frequent occurrence of dilatation of the stomach and of the consequences of this morbid condition. He has observed two hundred and twenty cases of gastric dilatation, and his statistical researches have proved that thirty per cent. of sickly people are the subjects of this affection. Amongst patients treated for chronic maladies dilatation is found as frequently as sixty per cent. More often this distention is not revealed by any symptom except such as is revealed by physical examination of the organ in question. There are no digestive troubles in about a third of the number of cases. In the majority of cases the sign of dilatation is a "bruit de clapotement," a splashing sound when the gastric region is percussed below the level of a line which joins the navel to the lower border of the last left rib. To have any clinical significance, this sign must be observed in the morning when fasting or when the patient has had only a glass of water.

According to M. Bouchard, dilatation is the cause and not the consequence of dyspepsia. Gastric dilatation may lead to numerous troubles, of which the following are the principal: 1. Digestive disturbances, distention, eructations, acidity, fetid breath, constipation, mucous discharges, hemorrhoids. 2. Congestion and swelling of the liver, producing depression of the right kidney, which has been regarded by Bartels as primary. 3. Nervous disorders, consisting in headache, nightmare, migraine, vertigo, weakness of memory, loss of strength, priapism, hallucinations, palpitations, shortness of breath, post-sternal pain, angina pectoris, etc. 4. Alterations in the urine, which may contain urate sediments, sugar, albumen, and peptones. 5. Cutaneous eruptions.

6. Bronchitis, coryza, asthmatic attacks. 7. Cardiac lesions, purpura, and nodular rheumatism.

All these manifestations do not exist at once, but their existence, isolated or simultaneous, has allowed of a division of the malady into various forms: dyspeptic, enteric, hepatic, renal, cardiac, cutaneous, rheumatic, consumptive. The links which bind gastric dilatation to these various conditions are more difficult of demonstration.

Dilatation of the stomach first hinders the elaboration of the food, thereby provoking unhealthy fermentations and multiplication of the figured elements in the stomach. Products of fermentation of the alimentary bodies are noxious and even, at times, toxic. It is the injurious action of these products on the economy which are the worst pathological consequences of dilatation of the stomach. M. Du-jardin-Beaumetz, in discussing this paper, urged wisely that the splashing sound heard on percussion is, perhaps, hardly sufficient to diagnose dilatation.

THE PATHOGENIC MICROBES OF GONORRHOEA.

THE microbe of gonorrhœa was discovered in 1879 by Neisser, and was given the name of gonococcus—the seed of numerous production—and in a recent number of the *Nordiskt Medicinskt Arkiv*, DR. EDWARD WELANDER has an elaborate article, in which he concludes that they are characteristic of the disease.

The gonococcus is always found in groups, never in chaplets; it is seen in the interior as well as at the exterior of pus-cells, frequently in large groups upon the epithelium, and besides in a free state in the secretion. The proofs that they are the pathogenic microbes of blennorrhagia are, according to Welandér, that he has found them in 129 cases of acute, and in 15 cases of chronic blennorrhagia in the male, and in the purulent urethral secretion of 49 females, while he has not found them in other secretions; in 25 cases of blennorrhagia in all of which the gonococcus was found, he ascertained the persons who communicated the disease, and in them too the gonococcus was present. Further, inoculation with secretions which did not contain the gonococcus gave negative results, while blennorrhagia followed those cases in which purulent matter containing the gonococcus was used. Still, the scientific proof is wanting, for the few culture-experiments that have been made are incomplete, or discredited; and so far the cultivation of the gonococcus has proved exceedingly difficult.

In the treatment various antimicrobial remedies have been tried, such as carbolic acid, corrosive sublimate, and iodoform, but the results have not been satisfactory. Welandér regards an abortive treatment during the first two or three days as quite proper, and his method is first to cleanse thoroughly

the anterior portion of the urethra, chiefly the navicular fossa, with cotton and forceps, thus removing a quantity of epithelial cells with the gonococcus in or upon them, and then cauterize with a solution of nitrate of silver.

So far, it seems that the discovery of the gonococcus has not helped the treatment of blennorrhagia; but it certainly is a great gain to be able to say positively when the contagiousness of the disease has ceased, and when, for example, a man may enter married life safe from the danger of communicating disease to his wife, and thus making her suffer for his sins, giving her not only different forms of intrapelvic inflammation, but, according to Dr. Noeggerath's views, making her sterile. In medico-legal cases the discovery may prove of the greatest importance. Thus in cases of leucorrhœa in children, against whom it has been charged that rape had been attempted, and disease thereby communicated, the absence of the gonococcus in the vulval or vaginal discharge would at once disprove the charge.

As an incidental practical point, Welander suggests that the oculist may be enabled, by determining the presence or the absence of the gonococcus, to ascertain the nature of a purulent inflammation of the conjunctiva.

TREPHINING IN TRAUMATIC EPILEPSY.

FROM a paper read before the American Surgical Association at its recent meeting, and published in *The American Practitioner* for July, by DR. W. T. BRIGGS, of Nashville, we learn that that accomplished surgeon has obtained the most brilliant results from trephining for epilepsy arising from injuries of the head. Of his 30 cases, 25 were cured, 3 relieved, 1 was not benefited, and 1 died. The wounds were dressed after the open method for free drainage, and germicidal agents were not employed.

That these excellent results, as well as the low rate of mortality, are not, however, always attainable, is shown by an examination of a larger number of cases derived from the practice of many operators. Thus, Walsham has tabulated in *St. Bartholomew's Hospital Reports*, vol. xix., 130 examples of trephining for traumatic epilepsy, of which 75 were completely cured, 18 were improved, 7 were not benefited, and 30 died. It should be mentioned that one of Briggs's cases appears in the tables, but if we substitute for it a recent recovery by Warren, of Columbus, Ohio, we arrive at the following results: 160 cases have yielded 100 cures, 21 improvements, 7 failures, and 31 deaths.

It is doubtful whether the same ratio of complete recoveries, namely, 62.5 per cent., has ever been attained by internal medication; and as the death-rate—19.37 per cent.—is not excessive, it would ap-

pear that the procedure is eminently proper, especially if it be resorted to as early as possible after the fits have declared themselves.

SELF-INFECTION IN CHILDBED.

It has been for some time generally held that so-called puerperal fever is either autogenetic or heterogenetic. But, if the disease depend upon a specific microbe, this classification can no longer be admitted; and, indeed, to suppose that the lying-in woman can create within herself a puerperal poison which, in its evolution, manifests the same symptoms as are shown when the infection obviously has an external source, and which communicates a like disease to other women, seems illogical.

Ahlfield, among others, has upheld recently the doctrine of self-infection, adducing cases of puerperal disease in which, as he believed, the patients were effectually guarded against all external infection. But DR. LEOPOLD LANDAU criticises, in a recent number of the *Archiv für Gynäkologie*, Ahlfield's views, and shows that he is in error as to there being perfect protection in the cases referred to, from germs coming from the outside, and that these germs may reach the genital organs in spite of his antiseptic precautions. Landau believes that, in a therapeutic point, it is of the greatest importance that all hypotheses such as that of self-infection should be rejected, for injury will thereby be prevented.

OGSTON'S OPERATION FOR GENU VALGUM.

SUBCUTANEOUS division of the internal condyle of the femur for knockknee, has, according to the report made to the recent Surgical Congress at Berlin, by PARTSCH, been done thirty-four times at the Breslau Clinic, from 1878 to 1884. All recovered, despite the fact that the saw broke in one, and the fragment could not be extracted. Of the four patients in whom the record could be followed for at least three years, two were completely well without any deformity, while a light grade of genu valgum persisted in the others.

Partsch's views as to the superiority of this operation over Macewen's, met with warm opposition in the discussion which the reading of his paper elicited. Volkmann thought that it ought to be discarded, not only on account of the deaths which have occurred, but from the fact that the condyle occasionally fails to unite, that it is liable to give rise to deformity of the joint, and that opening of the joint is unnecessary when the curvature is seated between the shaft and epiphysis. In one of Lange's cases, there was so much interference with the subsequent growth, that the knee-joint was practically useless; while of five patients under the care of Mikulicz, two recovered with ankylosis.

SOCIETY PROCEEDINGS.

INTERNATIONAL MEDICAL CONGRESS.

Eighth Annual Session.

Held at Copenhagen, August 10th-16th, 1884.

Special Cable Dispatch from Our Own Correspondent.

COPENHAGEN, AUGUST 14TH. Pleasant weather has favored the gathering of the Eighth Session of the International Medical Congress, which was

FORMALLY OPENED

in this City on August 10th with imposing ceremonies. The event was graced by the presence of Their Majesties, the King and Queen of Denmark, and the King and Queen of Greece, and of the Danish Council of State, foreign ministers, and other State officials, who, decorated with numerous badges and orders, added to the brilliancy of the occasion.

The membership of the Congress is large, and the different countries are well represented. Upwards of

SEVENTEEN HUNDRED MEMBERS ARE REGISTERED,

including about three hundred and fifty delegates from Denmark, one hundred from Sweden, one hundred from Norway, and about eleven hundred and fifty from various other countries.

PROFESSOR P. L. PANUM, CHAIRMAN of the Organizing Committee, delivered the following

INAUGURAL ADDRESS,

Sire, Your Royal Highnesses, Ladies, and Gentlemen: Having the honor assigned me to open the Eighth International Congress of the Medical Sciences, my first duty is to thank His Majesty, the King, in the name of my colleagues, for the favor which he has bestowed upon us by deigning to be the Patron of our Congress.

I have, at the same time, the honor of thanking all the royal family for giving us the honor of its presence at this inaugural meeting.

This patronage and this presence are for us the best auspices of a happy international reunion. May the Chief of this august family, which has reunited in harmony, by the most intimate and gracious ties, the different nationalities of Europe, be for us the symbol of the international principle which should characterize our science and our assembly! Let us hope that the members of our Congress will be united by sentiments as fraternal, and be elevated above the boundaries of special nationalities, as are the illustrious members of the Royal Family of Denmark! But that should not be difficult for us who are united in an aim so interna-

tional as medical science. Is it not our object to combat the enemies of the whole human race; the diseases of man and the causes of those diseases? This noble aim should inspire us all with fraternal sentiments. I have still the duty of thanking, in the name of all my colleagues, the Ministers, the Representatives of the Chambers, the Magistrates, the representatives of our City, and all those of our citizens who have favored and protected our Congress, and given friendly assistance at this inaugural meeting.

To you, dear and learned colleagues of foreign countries, to you who have braved the fatigues and annoyances of a long voyage to assist and participate in this Congress, even despite the universal alarm caused by the cholera, to you I extend a cordial welcome, not only in the name of my colleagues, but also in the name of all my fellow-citizens.

I should, however, say that we have only accepted this honor with timidity, and not without hesitation. The brilliant and incomparable success of the Congress in London, the great efforts there made, the enormous resources of the greatest and richest city of the world, still further increased by those of the vast British empire—all this might well intimidate us.

I do not yet understand the motives of the resolution passed at the last Congress, in London, desiring that the next Congress be held in one of the capitals of the Scandinavian countries, either at Stockholm, Copenhagen, or Christiania; but I well know that my Danish, Swedish, and Norwegian colleagues have been highly sensible of the honor which the Committee of the London Congress did them in designating one of these cities as the place for holding the Congress.

Modesty would have prevented the Danes from disputing the preference for Stockholm, the capital of a larger country than ours, and whose situation is more picturesque than that of Copenhagen; but Stockholm could not accept this honor on account of temporary circumstances; and Christiania, fearing that her resources were insufficient, did not accept it.

The hesitations with which we were inspired by a sense of modesty, though well justified, disappeared, however, when the Committee of the London Congress expressed the formal desire that Copenhagen should be the place of meeting of the Eighth International Congress of the Medical Sciences. I suppose that preference was given to our city chiefly on account of its more central situation, and greater convenience of access for strangers of other countries than that of Stockholm and Christiania. The proposition of the London Committee was promptly accepted and cordially embraced by the physicians of Copenhagen, and everything which we thought possible has been done to assure the success of the Congress. But we know only too well that we have a thousand reasons for appealing to your indulgence.

It is then to the London Committee that we owe the

honor of the selection of Copenhagen as the place of meeting for this Congress. I am happy to be able, in the name of my Danish colleagues, to address our personal thanks to the illustrious President of the London Committee, Sir James Paget, and to the eminent Secretary-General of that Committee, Sir William MacCormac, and to be able, in the name of all the members of our Congress, to express our great pleasure at seeing them here.

It would have been, however, without doubt imprudent for the Danish physicians to have accepted the Congress could we not have counted on the assistance of our colleagues of the other Scandinavian countries. But we were well assured of your assistance, dear colleagues of Sweden, Norway, and Finland. United to us by a common language which presents only very slight differences of dialect, we have already and for a long time worked together in the Congress of Scandinavian Physicians and Naturalists, and been collaborators in the same journals. In the name of the Danish physicians I thank you, dear colleagues from sister countries, you who have desired to give us your assistance in the work of organizing the different Sections, and you also who have come as members of the Congress. You are not strangers here, you are at home, and I am convinced that the visitors from other countries regard you as of us, because they fixed the place of meeting of the Congress with you as well as with us.

You also, dear and learned colleagues of other countries and languages, and of different nationalities, from Germany and from Austria as well as from France and Belgium, from England and North America, from Russia and Switzerland, from Holland and Italy, and from all the other countries of the two hemispheres, you are all equally welcome, from the East as from the West, from the South as from the North. You all come as allies, as combatants against our common enemies, which recognize no nationality, and you come bringing to the arsenal of science new arms which equally belong to all nations, and which will always remain the property of the whole human race.

Nationality counts for nothing in our science, and has nothing to do with our Congress. We are not here to discuss either national or political problems. On the contrary, any discussion of these subjects on this occasion would be entirely out of place. Every manifestation of national pride or of predilection for any particular nationality would be here offensive to others who equally have the right to be proud of their nation, and whose duty it is to love their country. It goes without saying that all of us will ever preserve these patriotic sentiments deep in our hearts.

It is necessary, however, to use a language belonging to one or the other of these nationalities, for the ancient language, the Latin, is to-day no longer practicable in our science. I would be happy, gentlemen, to be able to address you in all your languages at the same time;

but, that not being possible, I admit that I have been much embarrassed to make a choice.

As a Dane, it would be more convenient for me to use the Danish language, but this language would not be understood by most of our visitors. It would be very easy for me to use the German language, in which I have taught my science for a number of years. But I think that on this occasion I should prefer the French language, because it would most probably be best understood by every one, because it is recognized in our country as the language of polite society, and finally because it has been chosen for the official language at most of the preceding Congresses.

At our Congress it is not necessary to use languages as flags of our nationality, but as signals by the aid of which men of different nations approach to exchange the treasures of science, and to ask or offer good-will.

As a symbol of a nationality, language should certainly be pure, and not tainted with errors of grammar or foreign pronunciation, but, as a means of clear understanding, grammar and pronunciation have only a real value in so far as they are necessary to express thought. It is of little importance to a ship whether the sails be white, red, black, or spotted, so long as they serve to drive forward the vessel.

You who have the happy privilege of using as your native language French, English, or German, you will without doubt have the goodness to excuse us for offences against the grammar of your idioms, and I hope that you yourselves will on some similar occasion have the modest privilege which we now claim for ourselves, of being willing to speak, in your tour, some foreign language, rendered necessary by these circumstances. But in any case, in speaking your mother-tongue, I hope, out of regard for others, you will have the kindness to speak slowly and distinctly; otherwise, those who use their own language will, perhaps, be less readily understood by those who speak a foreign language, whether well or badly.

I have made these remarks because I am convinced that the success of this Congress and of succeeding International Congresses will always depend on the harmony and organized coöperation of men of science from every country, of all nations and languages. Whatever reason different nations may have for warfare, they should ever be united as brothers in all that concerns the advancement of science, and combat the brute forces which are hostile to humanity, as well as the enemies of our science, who are fond of comparing it to the building of the Tower of Babel.

Gentlemen, the fabulous Tower of Babel was evidently something very different from our science, for it is, as you well know, of celestial origin. It has produced some immortal works, and is of use to all the world. It demands devoted and modest workers, while the frivolous ambition, the pride, the vanity, the egotism, the rivalry, of men and nations, have never pro-

duced anything but some Tower of Babel, soon destroyed by the same forces. Let us hope that the results of our Congress will be worthy of this reunion of the most distinguished physicians of our time, who in good will have come here to communicate to us the treasures of their observations and of their researches!

At the conclusion of Professor Panum's speech, brief

ADDRESSES IN RESPONSE

were made by Sir James Paget, of London; Professor Virchow, of Berlin; and Dr. Pasteur, of Paris.

The Congress then proceeded to effect a permanent organization, and elected the following

OFFICERS:

President.—Prof. P. L. Panum, of Copenhagen;

Secretary-General.—Prof. C. Lange, of Copenhagen; and the following

HONORARY PRESIDENTS:

Sir James Paget, Sir William Gull, and Sir William MacCormac, of London; Prof. Henry W. Acland, of Oxford; Sir Risdon Bennett, Sir Joseph Lister, Sir Spencer Wells, and Mr. John Eric Erichsen, of London; Dr. Eben Watson, of Glasgow; Prof. John Marshall, of London; Dr. John S. Billings, of Washington, D. C.; Prof. Austin Flint, of New York; Dr. Louis Pasteur and Prof. A. Verneuil, of Paris; Prof. Chauveau and Prof. Ollier, of Lyons; Prof. Jaccoud, Prof. Hardy, Prof. Ranvier, Prof. Cornil, and Prof. Trélat, of Paris; Prof. Lépine, of Lyons; Prof. Virchow, of Berlin; Prof. von Kölliker, of Würzburg; Prof. Frerichs, of Berlin; Prof. Volkmann, of Halle; Prof. Esmarch, of Kiel; Prof. His, of Leipzig; Prof. Hensen and Prof. Flemming, of Kiel; Prof. Hirsch; Prof. Munk and Dr. Liebreich, of Berlin; Prof. von Liebermeister, of Tübingen; Prof. Tilanus, of Amsterdam; Prof. Rosenstein, of Leyden; Prof. Engelmann, of Utrecht; Dr. Reyher and Dr. Rauchfuss, of St. Petersburg; Prof. Tommasi-Crudeli, of Rome; Prof. Bottini, of Pavia; Dr. Crocq, of Brussels; Dr. Lombard, and Prof. Prevost, of Geneva; Dr. von Meyer, of Zürich; and Prof. Kolomnin, of St. Petersburg.

On the evening of the opening day, the President, Prof. Panum, entertained at dinner two hundred of the foreign members of the Congress. After the removal of the cloth, numerous toasts were proposed, in response to which speeches were made by Prof. Panum, Sir James Paget, Prof. Virchow, Dr. Pasteur, and others.

On the following day the fourteen Sections of the Congress were formally opened. They were largely attended, and a number of valuable papers were read.

In the afternoon the Congress met in general session, when DR. LOUIS PASTEUR delivered an address on

HYDROPHOBIA,

in which he fully discussed the subject of inoculation, and related his latest experiments on this subject.

At the conclusion of his address he was greeted with enthusiastic applause.

In the evening, the President of each Section entertained the members of his Section at dinner, thus enabling those interested in each specialty to meet one another socially, and constituting a very pleasant feature of the Congress.

On Tuesday, at the general meeting, Prof. Tommasi-Crudeli, of Rome, gave an address on

THE NATURAL PRODUCTION OF MALARIA, AND THE MEANS FOR MAKING MALARIAL COUNTRIES MORE HEALTHY.

PROF. A. VERNEUIL, of Paris, then delivered an address on

THE NEOPLASTIC DIATHESIS.

DR. JOHN S. BILLINGS, U.S.A., on behalf of the Committee appointed by the American Medical Association, in a brief speech, then delivered to the Congress a formal

INVITATION TO HOLD ITS NEXT SESSION IN WASHINGTON.

The invitation was favorably received, and will probably be accepted. No other invitations were presented, but the cities of St. Petersburg and Berlin were suggested as eligible places for holding the meeting. The decision of the Congress was deferred until the final meeting on Saturday.

Wednesday was given up to an

EXCURSION TO ELSINORE,

an old and interesting seaport of Denmark, where is laid the scene of Shakespeare's "Hamlet," and to the beautiful Castle of Kronborg, overlooking the Sound. The members, with their ladies, embarked on three steamboats, and greatly enjoyed the sail, of about twenty-four miles, through the Sound. The excursion occupied the whole day, and constituted a very agreeable feature of the meeting.

Each morning upon the adjournment of the Sections the members of the Congress are entertained at luncheon.

A COMMITTEE OF DANISH LADIES

are constant in their attentions to the ladies accompanying the members of the Congress, and private hospitality is unbounded. Numerous excursions, by land and water, are upon the programme.

The meeting is universally pronounced a brilliant success, and the members are highly gratified at the cordial and hospitable manner in which they are received and entertained.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, August 4, 1884.

THE PRESIDENT, D. A. K. STEELE, M.D., IN THE CHAIR.

(Specially reported for THE MEDICAL NEWS.)

DR. J. H. ETHERIDGE read a graphic historical account of

THE TREATMENT OF CHOLERA.

Phosphorus was extensively employed before this century. Sixty years ago calomel, opium, and vene-

section were the important therapeutic agents. James Johnson, in his classical work on *Tropical Diseases*, published in 1824, says, "Start the bile, then support the powers of life." In the epidemics of 1826-27, the new remedies were carbonic acid, hydrocyanic acid, nitro-muriatic acid, chloride of gold, chloride of sodium, oxygen, arnica, buchu, purgatives, boiling hot water, cold water, counter-irritants, actual cautery, and chlorine. The epidemic of 1832-34 was a terrible one, and the list of therapeutic agents is long. Acids of all kinds, alkalies, albumen, bandaging, hot-air and sand baths, vapor baths, belladonna, bile, tobacco, sulphate of copper, coffee, electricity, horseradish, transfusion, the injection into the bladder of medicated solutions, were employed in the treatment of the disease. An infusion of horseradish, calomel, and opium gained much reputation. Ice-water, intravenous injections of salines, iron, juniperberry oil, lead, lime-water, intravenous injections of milk, alcohol, turpentine, strychnia, the ligature of the extremities, croton oil, abdominal tourniquet, are also mentioned.

In 1848, anæsthetics, arsenic, camphor, capsicum, carbon disulphide, gum powder, hydrotherapy, *Perkins's tractors*, and ergot, were, in turn, remedial agents. In 1854, alcohol, chloride of calcium, eupatorium, garlic, potassium permanganate, quassia, sugar, *vaccination*, and *hard cider* were popular remedies. It was during this epidemic that B. W. Richardson, of London, advised the injection of water into the peritoneal cavity. About this time the nervous system began to receive attention from pathologists, and nervines were introduced. Nitrite of amyl, calabar bean, coca, spinal ice-bags, hypodermic injection of water, and the dosimetric system received the attention of the profession.

In 1873, sulphurous acid, antimony, chlor-alum, were added to the list.

DR. J. N. DANFORTH then discussed

THE PATHOLOGY OF CHOLERA.

He said that every organ of the body was more or less affected, but that pathologic-anatomical changes in the blood, intestinal walls, and kidneys were the three uniform lesions. The blood was thickened—sometimes to currant-jelly consistence—and contained microbes.

The intestinal villi were deprived of their epithelial covering, and Peyer's glands were enlarged. In the alvine discharges he had found, in 1873, epithelial cells, pus, blood, and microbes. Ziegler, Cornil and Ranvier, and Labarre (?) deny the existence of these epithelial cells in *ante-mortem* discharges. The arteries supplying the intestines were constricted, while the veins were greatly distended. The intestinal walls were, therefore, in a state of intense passive congestion. The kidneys presented the changes characteristic of acute fatty degeneration. The cortical glandular cells exhibited the fatty metamorphosis first. He agreed with Ziegler, Cornil and Ranvier, and Labarre (?) that the etiological relationship of Koch's microbe was not established. Dr. Danforth's remarks were well illustrated by drawings.

DR. W. T. BELFIELD was called upon for information in relation to

THE GERM-THEORY OF CHOLERA.

He said that Dr. Robert Koch had found in the in-

testinal walls of cholera patients in India and Egypt a microbe recognizable by its size, form, and reaction to staining fluids. This microbe had not been found in any other tissue or organ. The constant association of this microbe with cholera was established. Its causal relationship was not proved. Koch had failed to produce cholera in dogs, rabbits, cats, and white rats, by the inoculation of the cultivated bacillus. He had seen the microbes in a rapidly multiplying condition in the intestinal walls. Until human animals were placed at the experimenter's disposal, Dr. Belfield was of the opinion that positive evidence as to the rôle played by the cholera bacillus would be lacking. In anthrax the etiological relationship of the anthrax bacillus had been clearly proved. In no other affection had the inoculation of cultivated bacilli produced the respective disease.

As regards the natural history of Koch's cholera microbe, it flourishes in alkaline solutions of a low degree of saturation, while acid liquids are not tolerated. It must be remembered that choleraic discharges are usually alkaline.

DR. JOHN BARTLETT, a member of the committee of three appointed, in 1873, to investigate the pathology of cholera, made some interesting remarks with reference to the rôle of the cholera bacillus. In 1874 he was engaged in experiments with "Saulsbury's ague fungus." He had observed a fungus—a cell—in a developing fluid, aggregate about itself a crystalline body, tangible and in quantities—bearing the relationship to the fungus that coral bears to the coral insect. This crystalline body in time put forth buds, which were of a green color. Presently, from these green buds, a clear protoplasmic mass was developed, which gave origin to cells, each one of which resembled the cell observed in the first place. May there not be some stage in the development of the cholera microbe, when it is invisible, and at the same time functionally active?

DR. CHARLES GILMAN SMITH made an able speech on

THE PROPHYLAXIS OF CHOLERA.

He believed that the disease was highly contagious, and was accordingly surprised to hear a woman with the experience of Florence Nightingale, pronounce against the theory. The epidemic of 1854, which he had witnessed, furnished evidence sufficient to convince him that the disease was contagious, and that it was propagated by the decomposed dejecta of cholera patients. Without denying the possibility of its origin *de novo*, he knew of no recorded cases of such character. The disease, once developed, follows the lines of travel. This theory was sustained by the fact that cholera was unknown in Australia. A thorough quarantine of ships and railroads should be instituted. Of the effectiveness of a thorough quarantine he had no doubt. In the last epidemic there was a cholera focus at Butterfield and Thirtieth Streets in Chicago. The vigorous measures taken in removing the inhabitants and purifying the premises had stamped out the disease.

As bearing upon the question of prophylaxis, a letter from DR. JOHN H. RAUCH, Secretary of the State Board of Health, was read, of which the following extract is of interest:

The condition of the river, and especially of the South Fork, is a matter of the utmost importance to Chicago in the event of a cholera epidemic; and, indeed, at all

times. Sixty thousand cubic feet per minute transferred from the river to the canal will keep the former clean and harmless; will prevent the possibility of pollution of the water supply at the crib; will affect sixty-six per cent. of the South Fork, and will so dilute the sewage as to make the canal unobjectionable to the communities along its banks. To secure this transfer requires two things:

1. That the pumps at Bridgeport be operated to their full capacity.

2. That the waters of the Desplaines River be prevented access to the South Fork through the Ogden Ditch.

If the Society can achieve this, it will render a most important service to Chicago, will help De Wolf in his arduous work, and earn the gratitude of one hundred and fifty miles of cities, towns, and hamlets along the canal and Illinois River.

DR. N. S. DAVIS gave his experience in the epidemics of 1849, 1850-52-54, 1868, and 1873, on the

SYMPTOMATOLOGY AND TREATMENT OF CHOLERA.

Dr. Davis witnessed the epidemic of 1849 in New York City, and the others in Chicago. He did not believe in the germ-theory of the disease. In addition to an epidemic influence—whatever that might mean—there were three conditions necessary to cholera, viz., a high temperature, a soil in at least in a damp condition, and the presence of decomposing organic matter. He was sceptical as to the efficacy of any quarantine.

There was but one affection with which cholera could be confounded—cholera morbus. The differential diagnosis was usually not a difficult matter. In cholera, except in the height of an epidemic, there is a premonitory, painless diarrhoea, lasting from a few hours to several days. Accompanying this diarrhoea is a feeling of lassitude, weakness, general *malaise*. In cholera morbus there is no premonitory diarrhoea, but vomiting and purging occur at once, with great intestinal pain. Following the premonitory diarrhoea, in cholera, the patient complains of dizziness, and prickling sensations over the skin surface, and particularly in the extremities. Soon the patient vomits the stomachic contents; then he discharges by the mouth and anus the characteristic rice-water evacuations of cholera. After the first up and down movement, paroxysms of vomiting and purging recur every ten or twenty minutes. The amount of this choleraic discharge is very variable, but may measure half a gallon at a time. If set aside in a glass vessel flocculi settle to the bottom of the vessel, and the turbid, supernatant fluid becomes clearer. This fluid is composed of the serous elements of the blood, epithelial scales, and bacteria. In a fatal case, the patient now literally withers; symptoms of intense, acute anæmia supervene; the skin surface is alternately bathed with cold perspiration and shrivelled up. The eyeballs shrink back into their sockets; the finger-nails are blue, the lips pallid; the tip of the nose is cold like a dog's; the breath is distinctly cool. Intensely painful cramps are felt and seen in all voluntary muscles. The muscles of the calves, thighs, and upper extremities are seized first. The tongue is colorless, and the voice husky. The urine is entirely suppressed at an early stage of the disease.

In the height of an epidemic, the disease may run its course with frightful rapidity. In the epidemic of 1854, he had under his care a strong, healthy Scandinavian who, without any premonitory diarrhoea, was seized with serous vomiting and purging, and died three or four hours after the onset of the attack.

In cholera morbus, there is not this *ensemble* of the symptoms of acute anæmia, and the glandular secretions are not suppressed.

As regards treatment, he had few suggestions to make. In the premonitory stage, put the patient to bed at once—*when he is taken*—and treat as cholera morbus with the usual remedies when the patient commences to discharge by mouth and anus. Wait until the patient has become so exhausted by vomiting and purging that he can retch no longer, then put on the back of his tongue a powder containing one grain of calomel, one-sixth grain of morphia, and four or five grains of white sugar. He impressed upon his hearers the importance of doing this quickly, and said it was folly to wait for stated periods to give medicines in such cases, for the chances were that a dose would be given first on the recurrence of the vomiting, and, therefore, no good would come. As an enema, he gave ten grains of acetate of lead and one-half grain of morphia, in two ounces of water, directly after a paroxysm of purging. Apply dry heat to the extremities; sinapisms alternately to belly and back. After reaction has occurred, give dilute solution of table salt and small quantities of coffee and milk.

The cramps were best treated by firm compression. Rubbing was of less value. When vomiting ceased, he had been in the habit of giving, since 1849, small doses of the following mixture:

R.—Carbolic acid,	gr. $\frac{1}{4}$.
Tr. gelsemii,	m.v.
Paregoric,	f3 $\frac{1}{2}$.
Water,	to f3j.—M.

The thanks of the Society were tendered the venerable head of Mercy Hospital, and it was resolved to continue the discussion of the treatment of cholera at the meeting two weeks hence.

CORRESPONDENCE.

ETHERIZATION BY THE RECTUM.

To the Editor of THE MEDICAL NEWS.

SIR: It has amused more than it has surprised me to find etherization by the rectum spoken of in many medical journals as a novelty. Your correspondent, J. C. R., in the number of THE NEWS for August 2, refers to several European writers who have described this method, beginning with Pirogoff, in 1847; but he has overlooked the description of it which appeared in each of the four editions of Stillé's *Therapeutics*, from 1860 to 1874.

The language there used is the following: "The method of Pirogoff, which consists of injecting the vapor of ether, and ether itself largely diluted with water, into the bowel, has been condemned by some who have used it, on the ground of its occasioning ex-

trème flatulent distention of the abdomen. But many of those who have employed it to relieve painful internal maladies, such as neuralgia, spasm of the muscles of deglutition, lead colic, inflammatory pains of the joints, and cancer of the intestinal tube, report favorably of its anodyne and antispasmodic effects." The authority given for these statements is Canstatt's *Jahrbuch*, 1849, page 190.

THE USE OF THE OBSTETRICAL FORCEPS AS A SPECULUM.

To the Editor of THE MEDICAL NEWS.

SIR: The following extract from Blundell's *Principles and Practice of Obstetrics*, published in 1834, will be read with interest in connection with the valuable paper by Drs. Price and Faught in the last number of THE MEDICAL NEWS.

We wish only to suggest that in some cases the reduction of the foetal head may be so great that the forceps will slip, so that while the instrument is useful in protecting the maternal parts from injury during perforation, after this has been done, it may be useless for the purpose of extraction:

"If the contraction of the pelvis be slight, and craniotomy be required, those who are in the habit of using long forceps will probably have first made trial of this powerful instrument before they have recourse to the destruction of the child; and, if it so happen that the long forceps is still applied to the head at a time when craniotomy is proposed, it will be better still to leave the instrument on the cranium, as its operation may afterwards facilitate both the operation itself and the subsequent abstraction of the foetus."

Yours respectfully,
T. P.

PHILADELPHIA, August 2, 1884.

A CASE OF ALMOST COMPLETE ADIPOCERATOUS TRANSFORMATION.

To the Editor of THE MEDICAL NEWS.

SIR: In the latter part of April, I, with two local physicians, was requested to examine a recently exhumed body, supposed to be petrified.

On inspection, the coffin, with its enclosing box, was found to be well preserved. Opening these, we found the body of a large, portly woman, probably fifty years of age, whose death is said to have occurred in September, 1876, from diabetes mellitus. The exposed parts of the body were covered with a grayish mould, easily wiped away, disclosing the skin, which, in appearance, did not differ greatly from that of a recent corpse.

The features were perfect, with the exception of the eyes, which were deeply sunken, the ball being disorganized. Hands preserved, with the exception of slight decomposition around the roots of the nails. These were the only external evidences of decay.

No hair existed on the head at the time of death, but some short hairs on the lip were found to be firmly attached.

On attempting to remove the clothing, the cotton garments tore like wet paper; the silk dress was in a better state of preservation.

The entire body was well preserved, and in com-

plexion similar to the face (no mould having formed under the clothing). On the breast were found suggestions of cadaveric lividity; also several ulcers, said to have existed for some time before death.

Immediate percussion over various parts of the body elicited a note not unlike that obtained by striking a plastered wall. Palpation over the soft parts gave an impression of cartilaginous resistance.

A portion of the abdominal wall was cut away (the resistance to the knife being about that of moderately dried soap), and was found of the thickness usual in fleshy persons, but converted into a mass of adipocere, as was also the fat which had loaded the omentum.

A portion of the intestines was outlined by a thin, friable membrane, and the liver was almost perfectly preserved, of a consistence somewhat firmer than normal, and of a *café-au-lait* color. Excepting this, no viscera were found, but the cavity contained a small quantity of fluid having an odor similar to that found in the abdomen of a pickled cadaver—as did the gas which escaped on making the first incision.

The thorax contained nothing but gas and a small quantity of *débris*, which appeared to be the remains of the heart. This cavity was opened by cutting through the sternum and ribs; no more resistance was offered to the knife by the bone than by any other tissue. In the section, the cancellous structure of the sternum and ribs, and structure of the cartilage could be demonstrated, but all were of the same waxy consistency.

At the request of the friends, the cranium was not opened, but a pin inserted in the frontal region appeared to pass through the external, but to be arrested by the internal table of the skull.

The place of first interment was on an island some miles down the river, hence was not visited, but was described as a small sandy knoll, surrounded by a marsh or swamp, which always contains water more or less charged with organic matter, while on the same island limestone is obtained. The coffin had the appearance of having been completely submerged, and when first seen was partially filled with a soapy-looking water.

CHARLES M. GANDY, M.D.,
Assistant Surgeon U. S. A.

FORT BRADY, SAULT DE ST. MARIE, MICH.,
July 26, 1884.

NEWS ITEMS.

CINCINNATI.

(From our Special Correspondent.)

THE HEALTH OF THE CITY during the entire summer has been exceptionally good. With the exception of the month of June, the rate of mortality has been below the average. There have been no epidemic outbreaks, and the ailments usually accompanying the heated term have not been of marked severity. Our Board of Health, which is in many ways peculiar, claims the credit of all this good fortune, as due chiefly to their excellent sanitary measures. To this, the able editor of a local journal objects, going so far as to assert the utter incompetence of the Board.

In reality, the Board of Health is a disgrace to the city, but not more so than the rest of our municipal government. And in view of the qualifications (?) of

its members, there being not one medical man in it, the Board does very well. The Health Officer, who is the Board, is determined to occupy his office with credit, and is constantly urging the enforcement of sanitary measures throughout the city. If the cholera were verily in our midst the battle against it could not be more vigorous. The streets, although far from clean, are in better condition than they have been for several years, and the alleys are flushed out with an abundant supply of water, at frequent intervals; disinfectants are used in the garbage wagons, and a systematic inspection of premises is carried on by the officers of the Board.

One of the most commendable acts of the Board was the arrest and conviction, a few weeks since, of a professional abortionist. This case also served to illustrate the difficulties attending the conviction of such criminals, for although the guilt of the prisoner was unquestionable, it was proved with difficulty, and he escaped with a sentence which, for leniency, is a disgrace to civil justice.

YELLOW FEVER NOTES.—The total number of deaths from yellow fever at Havana for the week ending August 2d, as shown by the weekly report of Sanitary Inspector Burgess, was forty, a considerable increase over the week previous.

Consular sanitary reports from Mazatlan, Mexico, dated July 22d, state that the number of deaths from yellow fever at that port during the months of May, June, and July, were four, eight, and fourteen respectively; estimated population 16,000. The Board of Health of Mazatlan held a meeting July 19th, inviting the attendance of foreign consuls, merchants, and inhabitants generally, at which it was decided to continue issuing clean bills of health to vessels touching at that port, for the present, inasmuch as the deaths from yellow fever reported were all of unacclimated persons; that as yet no resident had been attacked, and the cases being isolated and few in number, in proportion to the population of the city, and not having taken an epidemic or general character, it was not deemed justifiable to issue foul bills of health. The consul adds that steamers touching there bound for United States ports, exercise such caution in communicating with the port as is consistent with the safety of the ship and her passengers. It is not believed that the state of health at Mexican ports between Guaymas and Acapulco is proportionately better.

The United States Sanitary Inspector at Nogales, Arizona, states that the Spanish Opera Troupe, which passed through that place and lost some of their number by yellow fever, were detained twenty-four hours and disinfected.

The schooner "J. Taylor," from Porto Bello, with three cases of fever, probably Chagres, arrived at Cape Charles Quarantine Station on the 12th inst., one death having occurred two days previous. The sick were removed to the U. S. Quarantine Station, Fisherman's Island, and the vessel permitted to pass up to the Baltimore quarantine, in accordance with previous understanding with the Health Commission of Baltimore.

THE BELLEVUE COLLEGE LABORATORY.—The authorities of Bellevue Hospital Medical College have filed

plans for the new Carnegie Laboratory, which is to be built on the south side of Twenty-sixth Street, 75 feet east of First Avenue. The structure will be 50 feet square and five stories, or 70 feet, high. The cost is estimated at \$50,000.

KOCH ON THE CHOLERA BACILLUS AND ON PASTEUR'S CRITICISM.—According to the *British Medical Journal* (August 2, 1884), Dr. Libbertz, of Frankfort-on-the-Main, who accompanied Dr. Koch to Toulon and Marseilles, published, during the week ending July 26th, a report of his experiences there, with the object "of correcting the numerous erroneous statements that have recently found their way into the columns of the daily press concerning the nature and propagation of cholera, and concerning the precautionary measures for the protection of individuals and the population at large." He sums up Dr. Koch's views in the following sentences: The spread of cholera is caused by personal contact, and not by goods and other objects, except damp infected linen. At the cholera congresses at Constantinople and Vienna, no case could be brought forward to oppose the accuracy of this view. The infective material is contained in the ejections, not in the urine, and not in the air we breathe. It is only efficacious in a moist state, dies when dry very speedily, and, therefore, cannot be transferred by the air. This explains why cholera bacilli have no permanency like those of small-pox. The latter are well known to form spores, a form of fructification of the greatest power of resistance. These spores can dry up for a long time, and become moist, and survive cold and heat; only a dry heat over 150° Cent., lasting for some hours, or a shorter process of steaming at 100° Cent., kills them. As above said, cholera bacilli do not possess the power of producing such lasting forms; they are known, by experience, to die after three hours' drying, and do not revive, as Pasteur strangely affirms, when again exposed to moisture. When Koch mentioned six days as the period after which objects that had been infected and then dried might be used again without risk, this was only to give a definite basis for practical purposes; he would have been just as well justified in naming one day. Pasteur's recent criticism, therefore, falls to the ground. Cholera is a disease which is confined to the digestive organs; cholera bacilli are not found in any other organs of the patient. It can only originate from the moist infective material forcing its way into the digestive channels. Contact with the patient is without danger, provided no contaminations take place likely to give infection from the digestive organs receiving some of the infectious matter. The following convey infection: infected drinking-water, infected water for washing and household purposes, infected moist and liquid articles of food. Amongst these, special stress must be laid on milk, and, above all, attention must be drawn to the power which dirty linen and the water it has been washed in have of conveying infection.

THE BROWN INSTITUTION.—MR. VICTOR HORSLEY, B.S., Assistant Professor of Pathology in University College, London, has just been elected Professor-Superintendent of the Brown Institution, to succeed Dr. Ray, who was recently transferred to Cambridge.

DECORATION OF DR. KOCH BY THE FRENCH GOVERNMENT.—It is announced that the French Government has bestowed the order of the *Légion d'Honneur* on Dr. Koch, in recognition of his services in the cholera district rendered during his short stay in France.

A STATUE TO DUMAS.—A committee has been organized to collect funds for the erection of a statue to Jean Baptiste Dumas, in Alais, his native place, with M. Pasteur as President, assisted by MM. J. Bertrand, F. de Lesseps, and Cauvet, with 59 national members, 29 foreign, and 15 men of letters.

DEATH OF SIR ERASMUS WILSON.—A cablegram from London, dated August 8th, announces the death of Sir Erasmus Wilson, LL.D., F.R.S., the well-known and prolific writer on dermatology, and late President of the Royal College of Surgeons of England.

Professor Wilson was born in 1809, became a member of the Royal College of Surgeons in 1831, Fellow in 1843, member of the Council in 1870, and President in 1881. He founded the Chair of Dermatology, and the Museum of Dermatology in the College of Surgeons in 1869, and was elected the first professor. He also founded a chair of pathology in the University of Aberdeen, and made munificent gifts to hospitals. He took a great interest in Egyptology, and it was entirely through his munificence that Cleopatra's Needle was transported from the borders of the Nile and erected on the Thames Embankment in London.

NOTES AND QUERIES.

BIDDING FOR STUDENTS.

To the Editor of THE MEDICAL NEWS.

SIR: In your issue of July 19, there is an editorial that animadverts in strong terms of disapprobation to a practice of a Baltimore medical college of sending out, with its catalogue, a circular inviting the physicians receiving it to recommend young men for admission on certain 'special privilege terms,' which are set forth in the catalogue. The editorial further states that the "privileged student is admitted for half the usual fees, which, without the reduction, are less than those of first-class medical schools," and declares that "such unlimited bidding can only have the effect of degrading medical education and lowering the institution which adopts it in the eyes of the better class of the profession," etc. Since a member of the faculty—but not the dean—of our neighbor, the University of Maryland, has pleaded "not guilty" to your indictment, it is presumed that you refer to the College of Physicians and Surgeons, and I, therefore, most respectfully request space in your valuable journal to reply in behalf of that institution.

When the College of Physicians and Surgeons was established in 1872, it had become a practice for even what you term "first-class" medical schools to accept a number of students, on what was called the "beneficiary" plan, at rates less than their regular fees, while nearly all the schools in the West and South put down their fees to a much smaller sum than that charged in northern schools, and in many cases even below the beneficiary fees of those schools. The College of Physicians and Surgeons of Baltimore followed the fashion of the times, and accepted students at the reduced rate. Having determined to do this, they also determined to do it in an open, honest, manly, and business-like way. They first enclosed in their catalogues printed slips, and finally postal cards, containing a form of application for beneficiary scholarship which medical preceptors could fill up, and return to the dean, with as little inconvenience or trouble as possible, and thus save a good deal of troublesome correspondence and delay. In sending out these printed forms, we did, not and do not consider that we are indulging in "unlimited bidding" for students, because we regard our professional brethren as honorable gentlemen who will be guided by the specifications of our catalogue, and will only recommend such students as are properly qualified and are entitled to aid on account of their want of means. We solicit no one to avail themselves of this privilege; we only inform them how they

can do it, and furnish them with the blank forms to save trouble some correspondence. If it is no shame to accept students at reduced rates—and even such eminently respectable and "first-class" schools as the medical departments of the Universities of New York and of Maryland, and many others equally "first class" (according to their fee bills) announce in their catalogues their willingness to do so—it surely can be no more disgraceful to let preceptors and students know how they can avail themselves of the offer. Nor do we think that in doing this we are "degrading medical education," for we believe that that can only be done by granting diplomas to persons who have not qualified themselves for the practice of medicine. This practice, the College of Physicians and Surgeons has sedulously avoided in the past, as it will in the future.

In regard to the question of fees, which by implication you make a test of respectability, I find that there are in the United States eleven regular medical schools whose fees are higher than those of the College of Physicians and Surgeons; four others whose fees are the same: *sixty-four* whose fees are less; and of these last, thirty have established their regular fees at a sum less than our "privilege" fee. Some of these, as the medical departments of the Universities of Iowa and Michigan, whose equipment, teaching corps, and financial backing ought to entitle them to rank as "first class," have merely nominal fees. (See Fourth Annual Report of the Illinois State Board of Health.) But, after all, the fees charged cannot be accepted as establishing the right of a school to a "first class" standing; for some schools whose fees are nearly, if not quite, as high as the highest, have virtually no means for teaching medicine practically, while some others, whose charges are the lowest, are thoroughly equipped in this respect.

I know of but one standard by which a school can be rated, and that is the standard of education which it offers, and the means and equipment which it possesses to enable it to maintain that standard. If judged by this standard, the College of Physicians and Surgeons of Baltimore is quite willing to submit to candid criticism, and even comparison with any school in the United States. It always has been, and still is, ready to coöperate in any feasible way with other schools to elevate the standard of medical education.

I am, very respectfully yours,

THOMAS OPIE, M.D.,

Dean of College of Physicians and Surgeons,
Baltimore, Md.

August 9, 1884.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JULY 29 TO AUGUST 11, 1884.

HEAD, JNO. F., *Colonel and Surgeon*.—Ordered to Portsmouth, N. H., to meet the Greely party, and consult upon the proper course of treatment, with a view to the entire restoration to health of Lieutenant Greely and the men of his command.—*Par. 14, S. O. 177, A. G. O., July 30, 1884.*

WRIGHT, JOSEPH P., *Major and Surgeon*.—Sick leave of absence extended three months, on surgeon's certificate of disability.—*Par. 12, S. O. 176, A. G. O., July 29, 1884.*

WOODWARD, JOSEPH J., *Major and Surgeon*.—Sick leave of absence extended six months.—*Par. 9, S. O. 178, A. G. O., July 31, 1884.*

TAYLOR, A. W., *First Lieutenant and Assistant Surgeon*.—Ordered for temporary duty at Fort Riley, Kansas.—*Par. 1, S. O. 153, Headquarters Department of the Missouri, July 29, 1884.*

GANDY, C. M., *First Lieutenant and Assistant Surgeon*.—Granted leave of absence for one month, to commence between August 15 and 30—provided he furnish medical attendance at Fort Brady, Mich., during his absence.—*Par. 5, S. O. 154, Headquarters Department of the East, July 30, 1884.*

GIBSON, J. R., *Major and Surgeon*.—Granted leave of absence for one month and fifteen days.—*S. O. 36, Headquarters Division of the Atlantic, August 4, 1884.*

HEIZMANN, C. L., *Captain and Assistant Surgeon*.—Relieved from duty at Columbus Barracks, Ohio, and ordered for duty in Department of the East.—*Par. 2, S. O. 180, A. G. O., August 2, 1884.*

MCCRERY, GEO., *First Lieutenant and Assistant Surgeon*.—Leave of absence extended two months.—*Par. 4, S. O. 180, A. G. O., August 2, 1884.*

HOPKINS, W. E., *First Lieutenant and Assistant Surgeon*.—Granted one month's leave of absence, with permission to apply for one month's extension.—*Par. 1, S. O. 67, Headquarters Department of Arizona, August 1, 1884.*